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As confidentially submitted to the Securities and Exchange Commission on February 11, 2021 as Amendment No. 1 to the draft registration statement submitted on January 8, 2021. This Amendment No. 1 has not been publicly filed with the Securities and Exchange Commission and all information herein remains confidential.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT

Under

The Securities Act of 1933

IKENA ONCOLOGY, INC.

(Exact name of registrant as specified in its charter)

Delaware	**2836**	**81-1697316**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

50 Northern Avenue
Boston, MA 02210
(857) 273-8343
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Mark Manfredi, Ph.D.
President and Chief Executive Officer
Ikena Oncology, Inc.
50 Northern Avenue
Boston, MA 02210
(857) 273-8343
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Richard Hoffman, Esq. **Stephanie Richards, Esq.** **William D. Collins, Esq.** **Goodwin Procter LLP** **100 Northern Avenue** **Boston, MA 02210** **(617) 570-1000**	**Lisa Firenze, Esq.** **Craig Hilts, Esq.** **Wilmer Cutler Pickering Hale & Dorr LLP** **7 World Trade Center** **250 Greenwich Street** **New York, NY 10007** **(212) 230-8800**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☐	Accelerated Filer	☐
Non-Accelerated Filer	☒	Smaller Reporting Company	☐
		Emerging Growth Company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities to be Registered	**Proposed Maximum Aggregate Offering Price(1)(2)**	**Amount of Registration Fee**
Common Stock, par value $0.001 per share	$	$

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
(2) Includes the offering price of shares that the underwriters may purchase pursuant to an option to purchase additional shares.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED , 2021

PRELIMINARY PROSPECTUS

Shares

Common Stock

We are offering shares of common stock. This is our initial public offering of our common stock.

Prior to this offering, there has been no public market for our shares. We expect that the initial public offering price will be between $ and $ per share. We have applied to list our common stock on The Nasdaq Global Market under the symbol "IKNA."

We are an "emerging growth company" under the federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and for future filings.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 14 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission approved or disapproved of the securities that may be offered under this prospectus, nor have any of these organizations determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Public offering price	$	$
Underwriting discount(1)	$	$
Proceeds, before expenses, to us	$	$

(1) We refer you to "Underwriting" beginning on page 204 for additional information regarding underwriting compensation.

Delivery of the shares of common stock will be made on or about , 2021.

We have granted the underwriters an option for a period of 30 days to purchase up to an additional shares of our common stock. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $, and the total proceeds to us, before expenses, will be $.

Joint Book-Running Managers

Jefferies **Cowen** **Credit Suisse** **William Blair**

The date of this prospectus is , 2021.

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Through and including , 2021 (25 days after the commencement of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

We have not, and the underwriters have not, authorized anyone to provide any information or to make any representation other than those contained in this prospectus, any amendment or supplement to this prospectus or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares of common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus, any amendment or supplement to this prospectus or any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, governmental publications, reports by market research firms, or other independent sources that we believe to be reliable sources. Industry publications and third-party research, surveys, and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe that these sources are reliable; however, we have not independently verified the information contained in such publications. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties, and are subject to change based on various factors, including those discussed under the section entitled “Risk Factors” and elsewhere in this prospectus. Some data are also based on our good faith estimates.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case appearing elsewhere in this prospectus. Unless the context otherwise requires, the terms "Ikena," "Ikena Oncology," "the Company," "the Registrant," "we," "us," and "our" in this prospectus refer to Ikena Oncology, Inc. and its subsidiaries.

Overview

We are a targeted oncology company focused on developing novel cancer therapies targeting key signaling pathways that drive the formation and spread of cancer. Our programs focus on key cancer driver pathways that are well-validated in scientific literature but lack approved or effective therapies and therefore have the potential to address high unmet medical needs. By leveraging our deep understanding of discovery chemistry, translational science, and patient-centric drug development, we have built a deep pipeline of wholly owned and partnered programs focused on genetically defined or biomarker-driven cancers, which enables us to target specific patient populations that we believe are most likely to respond to treatment with our product candidates. Since we commenced operations in 2016, we have discovered or developed five oncology programs that include four product candidates in either IND-enabling studies or clinical development.

Our lead targeted oncology product candidate, IK-930, is an oral small molecule inhibitor of the transcriptional enhanced associate domain, or TEAD, transcription factor in the Hippo signaling pathway. The Hippo pathway is widely accepted as a key and prevalent driver of cancer pathogenesis and is genetically altered in approximately 10% of all cancers, and such genetic alterations are generally associated with poor clinical outcomes. We intend to pursue clinical development of IK-930 across a wide range of tumor types with known Hippo pathway mutations, and plan to focus our initial development efforts on indications that provide the potential for rapid clinical development to achieve proof-of-concept, such as mesothelioma and soft tissue sarcomas. We intend to submit an Investigational New Drug application, or IND, to the U.S. Food and Drug Administration, or FDA, for IK-930 in the second half of 2021.

For our second targeted oncology program, we have discovered and plan to develop oral small molecule inhibitors of extracellular signal-related kinase 5, or ERK5, a downstream enzyme in the RAS signaling pathway, which have the potential to bring therapeutic benefit to cancer patients with a mutation in the kirsten rat sarcoma, or KRAS, gene, which is an oncogene implicated in many cancers. We anticipate nominating a development candidate for the ERK5 program and initiating IND-enabling studies in the second half of 2021 with the goal of submitting an IND in the second half of 2022.

In addition to the programs described above, we have ongoing discovery programs in targeted oncology focused on the development of novel drug candidates that target key nodes within the RAS pathway, and expect to nominate the first development candidate resulting from these discovery programs in 2022.

In addition to our targeted oncology programs, we have three product candidates designed to modulate the tumor microenvironment in specific patient populations by leveraging biomarker-driven patient enrichment strategies. Two of these product candidates, IK-175 and IK-412, are partnered with Bristol-Myers Squibb Company, or BMS, which we believe validates our ability to advance internally developed product candidates into clinical development using biomarker-driven patient enrichment strategies. The programs are as follows:

- IK-175 is an oral inhibitor of aryl hydrocarbon receptor, or AHR. We are currently enrolling patients with bladder cancer with activated AHR in a dose expansion cohort of a Phase 1 clinical trial of IK-175

as a monotherapy. Additionally, we plan on assessing IK-175 in combination with nivolumab in patients with bladder cancer in the first half of 2021 in the Phase 1b portion of the clinical trial. The primary endpoint of this trial is safety and tolerability. We expect to complete enrollment in both treatment arms in the second half of 2022.

- IK-412 is an enzyme therapy designed to lower levels of immunosuppressive kynurenine in the tumor microenvironment. We are currently conducting IND-enabling studies of IK-412 and intend to submit an IND in the second half of 2021.
- Finally, we are evaluating IK-007, an oral antagonist of prostaglandin E2 receptor 4, or EP4, in a Phase 1b clinical trial in biomarker-enriched patients with microsatellite stable colorectal cancer, or MSS CRC, who express high levels of an EP4 pathway metabolite called PGE2 Metabolite, or PGEM. We expect to complete enrollment for the Phase 1b clinical trial in the second half of 2021.

Our current pipeline of discovery and clinical programs is shown below:

Program	Target	Lead Indication(s)	Stage	Next Milestone(s)	Product Rights
Targeted Oncology Programs					
IK-930	TEAD	Hippo-mutated cancers	IND-enabling	2H 2021: Submit IND	ikena ONCOLOGY
RAS Signaling	ERK5	KRAS-mutated cancers	Lead Optimization	2H 2021: Initiate IND-enabling studies 2H 2022: Submit IND	ikena ONCOLOGY
RAS Pathway	Multiple	Solid Tumors	Discovery	2022: Nominate Development Candidate	ikena ONCOLOGY
Tumor Microenvironment Programs					
IK-175	AHR	Biomarker enriched bladder cancer	Phase 1a (single agent)	1H 2021: Initiate Phase 1b combination arm 2H 2022: Complete Phase 1 enrollment	Bristol Myers Squibb [1]
IK-412	Kynurenine	Solid Tumors	IND-enabling	2H 2021: Submit IND	Bristol Myers Squibb [1]
IK-007 +pembro [2]	EP4	Biomarker enriched MSS CRC	Phase 1b	2H 2021: Complete Phase 1b enrollment	ikena ONCOLOGY [3]

[1] BMS has the right to exclusively license under a master collaboration agreement

[2] Pembrolizumab provided through a clinical trial collaboration and supply agreement with Merck.

[3] Ikena has a worldwide exclusive license except China and Taiwan from AskAt.

Our Discovery and Development Approach

We employ a patient-centric research and development, or R&D, approach across discovery chemistry and biology, translational science and clinical development. We select new programs based on two key strategic principles:

- Cancer driver targets must have a compelling biological rationale, including:
  - Tumor intrinsic changes such as mutations, gene fusions, and gene amplifications; and
  - Strong clinical rationale with the potential to develop a first-in-class or best-in-class therapeutic.

- Alignment with a translational path in disease indications with high unmet medical need, including:
  - No currently approved therapies, or patient populations that are underserved by current treatments; and
  - A biomarker-driven proof-of-concept clinical development plan.

We pursue the discovery and development of small molecule modulators of targets in any target classes that meet these key strategic principles, using structural biology-guided chemistry and applying our deep cancer biology expertise to rigorously select the best molecules for development. In parallel, we generate and validate biomarkers in order to enrich our programs for patients who we believe may be most likely to benefit from treatment with our product candidates. We then develop our own assays to analyze the impact that our product candidates have on these biomarkers, based on our translational insights. We then design clinical trials with the potential to demonstrate rapid proof-of-concept based on these biomarker strategies for the treatment of patients in disease indications with high unmet medical needs.

Our Targeted Oncology Programs

IK-930, a TEAD inhibitor

Our lead targeted oncology product candidate, IK-930, is an internally discovered, oral small molecule inhibitor of the transcription factor known as TEAD. Aberrant activation of TEAD caused by mutations in the Hippo tumor suppressor pathway can drive the formation and survival of tumors and the development of resistance to multiple existing therapies. The Hippo pathway is widely accepted as a key and prevalent driver of cancer pathogenesis and is genetically altered in approximately 10% of all cancers, and such genetic alterations are generally associated with poor patient outcomes. In certain tumors, such as mesothelioma and epithelioid hemangioendothelioma, or EHE, a type of soft tissue sarcoma, genetic alterations in the Hippo pathway are found in over 40% of patients. IK-930 is designed to potently and selectively bind to TEAD and inhibit TEAD-dependent gene expression. In our preclinical studies, IK-930 has been well tolerated and has shown favorable pharmacokinetics and pharmacodynamics. Moreover, we observed antitumor activity in preclinical studies using tumor models that harbored genetic alterations within the Hippo pathway. We intend to pursue clinical development of IK-930 across a wide range of tumor types with known Hippo pathway genetic alterations, and plan to focus our initial development efforts on indications such as mesothelioma and soft tissue sarcomas, that provide the potential for rapid clinical development to achieve proof-of-concept in disease indications with high unmet medical need. Moreover, we believe there is potential for a tumor agnostic approach for IK-930 given the prevalence of Hippo pathway genetic alterations in many forms of cancers. We also plan to explore IK-930 in combination with other targeted therapies, such as epidermal growth factor receptor, or EGFR, inhibitors, in more prevalent tumor indications. We intend to submit an IND for IK-930 to the FDA in the second half of 2021.

ERK5 inhibitor / RAS Signaling Pathway inhibitor program

We are developing a small molecule inhibitor program against ERK5 in the RAS signaling pathway. KRAS mutations in the RAS signaling pathway occur in approximately 26% of all cancers. Although there has been recent progress with development-stage compounds that are designed to directly inhibit certain KRAS mutations, approximately 85% of KRAS mutations are not being addressed by current product candidates or approved therapies. We believe that inhibiting ERK5 provides an opportunity to address a high unmet medical need by modulating a key target downstream in the RAS signaling pathway. In preclinical studies, we observed fewer tumors in genetically engineered KRAS mutant lung and pancreatic cancer mouse models where ERK5 was knocked out, as compared to wildtype control. We also observed that inhibition of the target using an ERK5 inhibitor tool compound blocked tumor growth in patient-derived KRAS mutated xenograft models. Additionally, in preclinical studies in KRAS primary human tumor models of lung and pancreatic cancer, we

observed synergistic effects on tumor inhibition by combining an ERK5 inhibitor and trametinib, a mitogen-activated protein kinase, or MEK inhibitor. We plan to pursue clinical development of oral ERK5 inhibitors both as single agent in KRAS mutated pancreatic and lung cancer and in combination with other targeted therapies to address resistance to MEK inhibitors. We anticipate nominating a development candidate and initiating IND-enabling studies in this program in the second half of 2021 and submitting an IND in the second half of 2022.

RAS Pathway discovery programs

In addition to our TEAD and ERK5 programs, we have several early stage discovery programs in targeted oncology in the RAS pathway. We are focused on well-known targets and mutations in this pathway that lack approved or effective therapies and therefore have the potential to address high unmet medical needs. We expect to nominate the first development candidate resulting from these discovery programs in 2022.

Our Tumor Microenvironment Programs

In addition to our core targeted oncology efforts, we are developing biomarker-driven programs against pathways to modulate the tumor microenvironment. We believe these programs have the potential, either as monotherapies or in combination with checkpoint immunotherapies, to overcome broad immunosuppression by modulating both the innate and adaptive immune systems. We have developed biomarkers that we believe will enable us to identify patients who will have a greater likelihood of benefiting from our tumor microenvironment therapies.

IK-175, an AHR antagonist

We are developing IK-175, a potent, selective AHR antagonist. AHR is a ligand-dependent transcription factor that drives tumor progression through direct cancer cell and immunosuppressive effect in the tumor microenvironment. In preclinical studies, we observed antitumor activity in AHR-dependent tumors and immune-driven antitumor responses following administration of IK-175. In addition, the combination of IK-175 and an anti-PD-1 checkpoint inhibitor had superior antitumor activity than either agent alone in preclinical tumor models. We have generated translational insights indicating that AHR is activated in a number of cancers including a subset of bladder cancers. We are currently conducting an open-label Phase 1 clinical trial to evaluate the safety of IK-175 as both a monotherapy and in combination with a PD-1 checkpoint inhibitor in solid tumors, including bladder cancer. To date, in the monotherapy dose escalation cohorts, IK-175 has been well tolerated and we observed encouraging evidence of pharmacodynamic modulation. We recently initiated monotherapy expansion in bladder cancer patients with tumors that exhibit activated AHR and we are enriching the clinical trial for these patients using our proprietary assays. We plan on assessing IK-175 in combination with nivolumab in patients with bladder cancer in the first half of 2021 in the Phase 1b portion of the clinical trial and expect to complete enrollment in both treatment arms in the second half of 2022. The primary endpoint of this trial is safety and tolerability. Our IK-175 program is partnered with BMS, which has the right to exclusively license the program through the completion of the Phase 1b portion of the clinical trial. See “—License and Collaboration Agreements—Master Collaboration Agreement with Bristol-Myers Squibb” for additional information.

IK-412, a recombinant human kynurenine-degrading enzyme

We are developing IK-412, a recombinant human kynurenine-degrading enzyme that we believe may be able to reduce tumor resistance to checkpoint inhibitors and has the potential to address the shortcomings of other kynurenine-reducing approaches such as inhibition of IDO1 by small molecule inhibitors. Kynurenine is a metabolite of the tryptophan degradation pathway and has long been recognized as an important contributor to immunosuppression. Recent clinical data from BMS suggests that increased kynurenine is an adaptive resistance mechanism to anti-PD-1 therapy in multiple cancers. We designed IK-412 to be optimized to degrade kynurenine regardless of the source from the kynurenine-producing enzymes IDO1 or TDO2 and to have high stability in

plasma, which we observed in non-human primates to be consistent with weekly or biweekly dosing in humans. In preclinical studies, after a single dose of IK-412 in non-human primates, we observed durable depletion of over 95% of serum levels of kynurenine. In other preclinical studies, in a murine syngeneic model of colorectal cancer, we also observed antitumor activity when dosed both as a monotherapy and in combination with checkpoint inhibitors and increased overall survival when dosed in combination with checkpoint inhibitors. To inform our indication selection, we developed several translational assays, including an immunohistochemistry assay using IDO1 or TDO2 antibodies to guide selection of certain solid tumors. We are also working on detecting kynurenine in tumors and in the blood of patients with certain solid tumors. We intend to submit an IND for IK-412 in the second half of 2021. Our IK-412 program is also partnered with BMS, which has the right to exclusively license the program through the completion of the Phase 1b portion of the clinical trial. See "—License and Collaboration Agreements—Master Collaboration Agreement with Bristol-Myers Squibb" for additional information.

IK-007, an EP4 antagonist

We are also developing IK-007, an oral selective EP4 receptor antagonist, for the treatment of microsatellite stable colorectal cancer, or MSS CRC, which represents approximately 80% of all patients with CRC. These patients generally do not respond to approved checkpoint inhibitors. In the ongoing Phase 1b clinical trial of IK-007 in combination with pembrolizumab in MSS CRC, we observed encouraging preliminary evidence of tolerability and antitumor activity in the initial dose escalation cohort and have not observed any dose limiting toxicities, or DLTs. In addition, we have identified an association between higher levels of PGEM, a metabolite in the EP4 pathway, in urine samples collected at study entry with those patients that demonstrated increased clinical benefit. We are enrolling patients in a dose expansion cohort using baseline levels of urinary PGEM to enrich for MSS CRC patients, who we believe will be more likely to respond to treatment. We expect to complete enrollment for the Phase 1b clinical trial in the second half of 2021.

Our Strategy

We are dedicated to bringing next generation targeted oncology therapies to cancer patients. We plan to achieve this goal by leveraging our deep understanding of complex biologic pathways and biomarker-driven discovery and clinical development. The key components of our strategy are as follows:

- Advance IK-930 through clinical development.
- Expeditiously progress a development candidate for the RAS signaling program through clinical development.
- Deepen our pipeline of biomarker-driven targeted oncology programs.
- Maximize the value of our pipeline by retaining commercial rights to our targeted oncology programs.
- Develop IK-175 and IK-412, our BMS-partnered programs, through Phase 1b clinical trials and achieve key near-term financial milestones.

Our Team

We have assembled a leadership team of highly experienced researchers, clinicians and business leaders to advance and broaden our portfolio of patient-directed oncology therapies. Our leadership team includes senior experts with a track record of success at leading biopharmaceutical companies including Takeda Pharmaceutical Company, or Takeda, Merck & Co., Eli Lilly and Company, Pfizer Inc., Novartis International AG, GlaxoSmithKline plc, H. Lundbeck A/S and Millennium Pharmaceuticals, Inc. Our senior management team includes:

- Mark Manfredi, Ph.D., our Chief Executive Officer and founder, has more than 20 years of oncology R&D experience, previously serving as chief scientific officer of Raze Therapeutics and as an Entrepreneur-in-Residence at Atlas Venture.

- Douglas Carlson, our Chief Financial Officer, brings over 18 years of experience with a multi-disciplinary background in corporate finance, venture capital, mergers and acquisitions, business development and commercial operations with both large and emerging growth healthcare companies.
- Jeffrey Ecsedy, Ph.D., our Chief Scientific Officer, brings over 20 years of experience in both discovery science and clinical translational medicine, and previously served as the head of oncology, translational medicine at Takeda.
- Sergio Santillana, M.D., M.Sc., MBA, our Chief Medical Officer, is a medical oncologist with more than 25 years of oncology drug development and clinical practice experience.
- Maude Tessier, Ph.D., our Chief Business Officer, brings over 15 years of business development, licensing and alliance management experience in pharma, biotech and academia.

Members of our R&D leadership and executive teams bring 23 years of experience on average and have contributed to over 50 INDs and 14 regulatory drug approvals throughout their careers. In addition, we have formed a multidisciplinary advisory board composed of prominent oncology thought leaders from Dana-Farber Cancer Institute, University of California, San Francisco and Vall d'Hebron Institute of Oncology, who will bring extensive strategic, clinical, translational and drug development expertise.

Our Leading Investors

As of December 31, 2020, we have raised over $160 million from leading life sciences investors and companies that include Atlas Venture, OrbiMed, BMS, Fidelity Management and Research Company, Omega Funds, Surveyor Capital (a Citadel company), Invus, Farallon Capital Management, BVF Partners, L.P., Cowen Healthcare Investments, Logos Capital, and HealthCor Management.

Recent Developments

Amplify Acquisition

On October 1, 2020, we acquired Amplify Medicines, Inc., or Amplify, pursuant to an Agreement and Plan of Merger. In connection with the merger, we issued 7,863,094 shares of our Series A-2 preferred stock and 3,048,764 shares of common stock to Amplify shareholders.

Series B preferred stock financing

On December 21, 2020, we issued and sold 85,806,214 shares of our Series B preferred stock at a purchase price of $1.3985 per share for gross proceeds of approximately $120.0 million.

Impact of COVID-19

In March 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic, which continues to spread throughout the United States and worldwide. To date, we have been carefully monitoring the COVID-19 pandemic and its potential impact on our business and have taken important steps to help ensure the safety of our employees and their families and to reduce the spread of COVID-19. We have established a work-from-home policy for all employees, other than those performing or supporting business-critical operations, such as certain members of our laboratory and facilities staff. For those employees, we have implemented stringent safety measures designed to comply with applicable federal, state and local guidelines instituted in response to the COVID-19 pandemic. We have also maintained efficient communication with our partners and clinical sites as the COVID-19 situation has progressed. We have taken these precautionary steps while maintaining business continuity so that we can continue to progress our programs. While we have experienced some delays in enrollment and site closures at certain of our third-party clinical trial sites, these delays have not had a material impact on our development timelines for our product candidates. We will continue to monitor developments as we address the disruptions and uncertainties relating to the COVID-19 pandemic. See "Risk Factors" for a

discussion of the potential adverse impact of the COVID-19 pandemic on our business, results of operations and financial condition.

Risks Associated with Our Business

Our ability to implement our business strategy is subject to numerous risks that you should be aware of before making an investment decision. These risks are described more fully in the section entitled "Risk Factors" in this prospectus. These risks include, among others:

- We are a targeted oncology company with a limited operating history.
- We have incurred significant net losses since our inception and anticipate that we will continue to incur losses for the foreseeable future.
- We have no products approved for commercial sale and have not generated any revenue from product sales.
- Even if we consummate this offering, we will need to raise substantial additional funding. If we are unable to raise capital when needed or on terms acceptable to us, we would be forced to delay, reduce or eliminate some of our product development programs or commercialization efforts.
- The COVID-19 pandemic, or a similar pandemic, epidemic, or outbreak of an infectious disease, may materially and adversely affect our business and our financial results and could cause a disruption to the development of our product candidates.
- We have never successfully completed any clinical trials for our oncology programs, and we may be unable to do so for any product candidates we develop. Certain of our targeted oncology programs are still in preclinical development and may never advance to clinical development.
- Our programs are focused on the development of oncology therapeutics for patients with genetically defined or biomarker-driven cancers, which is a rapidly evolving area of science, and the approach we are taking to discover and develop drugs is novel and may never lead to approved or marketable products.
- Clinical product development involves a lengthy and expensive process, with an uncertain outcome.
- If we are unable to successfully validate, develop and obtain regulatory approval for companion diagnostic tests for our product candidates that require or would commercially benefit from such tests, or experience significant delays in doing so, we may not realize the full commercial potential of these product candidate.
- Interim, top-line, and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to confirmation, audit and verification procedures that could result in material changes in the final data.
- We anticipate that certain of our current product candidates and future product candidates will be used in combination with third-party drugs or biologics, some of which are still in development, and we have limited or no control over the supply, regulatory status, or regulatory approval of such drugs or biologics.
- We may not be able to file INDs to commence clinical trials on the timelines we expect, and even if we are able to, the FDA may not permit us to proceed.
- We may in the future conduct clinical trials for our product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

- We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.
- If the market opportunities for our programs and product candidates are smaller than we estimate or if any regulatory approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.
- If our current product candidates or any future product candidates do not achieve broad market acceptance, the revenue that we generate from their sales may be limited, and we may never become profitable.
- We rely on third parties to conduct our Phase 1b clinical trial of IK-007 and Phase 1 clinical trial of IK-175 and expect to rely on third parties to conduct clinical trials for our targeted oncology programs, as well as investigator-sponsored clinical trials of our product candidates. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.
- We have entered into collaborations and may enter into additional collaborations in the future, and we might not realize the anticipated benefits of such collaborations.
- We contract with third parties for the manufacture of our product candidates for preclinical development and clinical testing, and expect to continue to do so for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.
- If we are unable to obtain and maintain patent and other intellectual property protection for our technology and product candidates or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drugs may be impaired.
- Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, deadlines, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated if we fail to comply with these requirements. We may miss a filing deadline for patent protection on these inventions.
- We may initiate, become a defendant in, or otherwise become party to lawsuits to protect or enforce our intellectual property rights, which could be expensive, time-consuming, and unsuccessful.
- Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions.
- We may seek priority review designation for one or more of our other product candidates, but we might not receive such designation, and even if we do, such designation may not lead to a faster regulatory review or approval process.
- Our future success depends on our ability to retain key executives and experienced scientists and to attract, retain and motivate qualified personnel.

Corporate History

We were incorporated under the laws of the State of Delaware in February 2016. We are the successor in interest to KYN Therapeutics L.L.C., a limited liability company formed under the laws of the State of Texas in September 2014. In December 2019, we changed our name from Kyn Therapeutics, Inc. to Ikena Oncology, Inc. Our principal corporate office is located at 50 Northern Avenue, 7th Floor, Boston, MA 02210, and our telephone number is (857) 273-8343. Our website address is www.ikenaoncology.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

We own various U.S. federal trademark applications and unregistered trademarks, including our company name. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- being permitted to only disclose two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure about our executive compensation arrangements;
- not being required to hold advisory votes on executive compensation or to obtain stockholder approval of any golden parachute arrangements not previously approved; and
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions until the fifth anniversary of our initial public offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenue of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the last day of the fiscal year in which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or SEC, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an emerging growth company, we may rely on certain of these exemptions, including without limitation, providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act.

THE OFFERING

Common stock offered by us	shares.
Common stock to be outstanding immediately after this offering	shares (shares if the underwriters exercise their option to purchase additional shares in full).
Underwriters' option to purchase additional shares	We have granted the underwriters an option, exercisable for 30 days after the date of this prospectus, to purchase up to additional shares from us.
Use of proceeds	We estimate that our net proceeds from the sale of shares of our common stock in this offering will be approximately $ million, or $ million if the underwriters exercise in full their option to purchase additional shares, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, to advance the development of our targeted oncology programs, IK-930, ERK5 and other targeted oncology preclinical programs; to advance development of IK-175, IK-412, IK-007; and to fund working capital and general corporate purposes. See "Use of Proceeds" for additional information.
Risk factors	You should carefully read the "Risk Factors" section of this prospectus for a discussion of factors that you should consider before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	IKNA

The number of shares of our common stock to be outstanding after this offering is based on 191,466,396 shares of our common stock outstanding as of September 30, 2020, which assumes the automatic conversion of 75,727,268 shares of preferred stock outstanding as of September 30, 2020, 7,863,094 shares of Series A-2 preferred stock issued on October 1, 2020 and 85,806,214 shares of Series B preferred stock issued on December 21, 2020 into an aggregate of 169,396,576 shares of common stock upon the completion of this offering, and includes 3,048,764 shares of common stock issued on October 1, 2020, and excludes:

- 19,046,758 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2020, at a weighted average exercise price of $0.48 per share;
- shares of our common stock that will become available for future issuance under our 2021 Stock Option and Incentive Plan, or 2021 Plan, which will become effective in connection with the completion of this offering; and
- shares of our common stock that will become available for future issuance under our 2021 Employee Stock Purchase Plan, or ESPP, which will become effective in connection with the completion of this offering.

Except as otherwise indicated, all information in this prospectus assumes or gives effect to:

- the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 169,396,576 shares of our common stock immediately prior to the completion of this offering;
- no exercise of the outstanding options described above;
- no exercise by the underwriters of their option to purchase up to an additional shares of our common stock in this offering;
- a one-for- reverse split of our common stock, which will become effective prior to the completion of this offering; and
- the filing of our fifth amended and restated certificate of incorporation and the adoption of our amended and restated bylaws, which will occur immediately prior to the completion of this offering.

SUMMARY CONSOLIDATED FINANCIAL DATA

You should read the following summary financial data together with our consolidated financial statements and the related notes appearing at the end of this prospectus and the "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this prospectus. We have derived the statement of operations data for the years ended December 31, 2018 and 2019 from our audited consolidated financial statements appearing elsewhere in this prospectus. The statement of operations data for the nine months ended September 30, 2019 and 2020 and the balance sheet data as of September 30, 2020 have been derived from our unaudited financial statements appearing elsewhere in this prospectus and have been prepared on the same basis as the audited financial statements. In the opinion of management, the unaudited data reflect all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial information in those statements. Our historical results are not necessarily indicative of results that should be expected in any future period, and our results for any interim period are not necessarily indicative of results that should be expected for any full year.

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2018	2019	2019	2020
	(In thousands, except share and per share data)			
Statement of Operations Data:				
Research and development revenue under collaboration agreement	$ —	$ 13,753	$ 10,949	$ 9,129
Service revenue (related party)	990	—		
Total revenue	990	13,753	10,949	9,129
Operating expenses:				
Research and development	38,986	24,938	18,974	21,445
General and administrative	2,898	7,307	5,024	6,150
Total operating expenses	41,884	32,245	23,998	27,595
Loss from operations	(40,894)	(18,492)	(13,049)	(18,466)
Other income	29	1,675	1,340	261
Net loss and comprehensive loss	$ (40,865)	$ (16,817)	$ (11,709)	$ (18,205)
Net loss per share attributable to common stockholders, basic and diluted(1)	$ (3.35)	$ (0.89)	$ (0.62)	$ (0.96)
Weighted average shares of common stock outstanding, basic and diluted	12,193,711	18,945,673	18,938,256	19,013,848
Pro forma net loss per share of common stock attributable to common stockholders, basic and diluted(2)		$		$
Pro forma weighted average shares of common stock outstanding, basic and diluted(2)				

(1) See Note 16 and to our consolidated financial statements appearing elsewhere in this prospectus for details on the calculation of basic and diluted net loss per share.

(2) Pro forma basic and diluted net loss per share attributable to common stockholders have been prepared to give effect to the automatic conversion of all shares of preferred stock outstanding into shares of common stock as if the conversion had occurred on the later of the beginning of the period presented or the date the preferred shares were issued.

The following table sets forth summary balance sheet data as of September 30, 2020:

- on an actual basis;
- on a pro forma basis to give effect to (i) the acquisition of Amplify, which occurred on October 1, 2020, which includes the issuance of 7,863,094 shares of our Series A-2 preferred stock and 3,048,764 shares of common stock, the recognition of $10.7 million of expense related to the write-off of acquired in-process research and development assets with no future alternative use, and the recognition of other assets acquired and liabilities assumed, (ii) the issuance of 85,806,214 shares of our Series B preferred stock which occurred on December 21, 2020 for net proceeds of $116.4 million, and (iii) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 169,396,576 shares of common stock immediately prior to the completion of this offering; and
- on a pro forma as adjusted basis to further give effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	As of September 30, 2020		
	Actual	Pro Forma	Pro Forma as Adjusted(1)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 55,860	$175,781	$
Total assets	60,764	180,586	
Working capital(2)	31,005	149,857	
Total Liabilities	60,397	61,367	
Redeemable convertible preferred stock	78,867	—	
Accumulated deficit	(85,288)	(95,977)	
Total stockholders' (deficit) equity	(78,500)	119,219	

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total assets, working capital and total stockholders' equity by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A 1.0 million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total assets, working capital and total stockholders' equity by $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. This information is illustrative only and will depend on the actual initial public offering price and other terms of this offering determined at pricing.

(2) We define working capital as current assets less current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our consolidated financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Limited Operating History, Financial Position, and Capital Requirements

We are a targeted oncology company with a limited operating history.

We commenced operations in 2016 and are a targeted oncology company with a limited operating history. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. Since our inception, we have devoted substantially all of our efforts to organizing and staffing our company, acquiring intellectual property, business planning, raising capital, conducting discovery, research and development activities, and providing general and administrative support for these operations. We have no products approved for commercial sale and therefore have never generated any revenue from product sales, and we do not expect to in the foreseeable future. We have not obtained regulatory approvals for any of our product candidates, and there is no assurance that we will obtain approvals in the future. Our targeted oncology programs are still in preclinical development. We expect to continue to incur significant expenses and operating losses over the next several years and for the foreseeable future. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' deficit and working capital.

We have incurred significant net losses since our inception and anticipate that we will continue to incur losses for the foreseeable future.

Our net losses were $40.9 million and $16.8 million for the years ended December 31, 2018 and 2019, respectively, and $11.7 million and $18.2 million for the nine months ended September 30, 2019 and 2020, respectively. We had an accumulated deficit of $85.3 million as of September 30, 2020. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect our research and development expenses to increase significantly in connection with the commencement and continuation of clinical trials of our product candidates. In addition, if we obtain regulatory approval for our product candidates, we will incur significant sales, marketing and manufacturing expenses. Once we are a public company, we will incur additional costs associated with operating as a public company. As a result, we expect to continue to incur significant and increasing operating losses for the foreseeable future. Because of the numerous risks and uncertainties associated with developing pharmaceutical products, we are unable to predict the extent of any future losses or when we will become profitable, if at all. Even if we do become profitable, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

The amount of our future losses is uncertain and our quarterly and annual operating results may fluctuate significantly or may fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline. Our quarterly and annual operating results may fluctuate significantly in the future due to a variety of factors, many of which are outside of our control and may be difficult to predict, including the following:

- the timing and success or failure of clinical trials for our product candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners;

- our ability to successfully open clinical trial sites and recruit and retain subjects for clinical trials, and any delays caused by difficulties in such efforts;
- our ability to obtain regulatory approval for our product candidates, and the timing and scope of any such approvals we may receive;
- the timing and cost of, and level of investment in, research and development activities relating to our product candidates, which may change from time to time;
- the cost of manufacturing our product candidates and products, should they receive regulatory approval, which may vary depending on the quantity of production and the terms of our agreements with manufacturers;
- our ability to attract, hire and retain qualified personnel;
- expenditures that we will or may incur to develop additional product candidates;
- the level of demand for our products should they receive regulatory approval, which may vary significantly;
- the risk/benefit profile, cost and reimbursement policies with respect to our product candidates, if approved, and existing and potential future therapeutics that compete with our product candidates;
- the changing and volatile U.S. and global economic environments, including as a result of the COVID-19 pandemic; and
- future accounting pronouncements or changes in our accounting policies.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated guidance we may provide.

We have no products approved for commercial sale and have not generated any revenue from product sales.

Our ability to become profitable depends upon our ability to generate revenue. To date, we have generated minimal collaborative revenue from our product candidates and have not generated revenue from product sales, and we do not expect to generate any revenue from the sale of products in the near future. We do not expect to generate significant revenue unless and until we obtain regulatory approval of, and begin to sell, one or more of our product candidates. Our ability to generate revenue depends on a number of factors, including, but not limited to, our ability to:

- successfully complete our ongoing and planned preclinical studies for our targeted oncology and tumor microenvironment programs;
- timely file and the acceptance of our investigational new drug applications, or IND, for IK-930 and our other programs in order to commence our planned clinical trials or future clinical trials;
- successfully enroll subjects in, and complete, our ongoing and planned clinical trials;
- initiate and successfully complete all safety and efficacy studies required to obtain U.S. and foreign regulatory approval for our product candidates;
- establish commercial manufacturing capabilities or make arrangements with third-party manufacturers for clinical supply and commercial manufacturing;

- obtain and maintain patent and trade secret protection or regulatory exclusivity for our product candidates;
- launch commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- obtain and maintain acceptance of the products, if and when approved, by patients, the medical community and third-party payors;
- position our products to effectively compete with other therapies;
- obtain and maintain healthcare coverage and adequate reimbursement;
- enforce and defend intellectual property rights and claims;
- implement measures to help minimize the risk of COVID-19 to our employees as well as patients and subjects enrolled in our clinical trials; and
- maintain a continued acceptable safety profile of our products following approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would materially harm our business. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations.

Even if we consummate this offering, we will need to raise substantial additional funding. If we are unable to raise capital when needed or on terms acceptable to us, we would be forced to delay, reduce or eliminate some of our product development programs or commercialization efforts.

The development of pharmaceutical products is capital-intensive. We are currently advancing our targeted oncology programs through preclinical development. We plan to file an IND for IK-930 in the second half of 2021 and begin a Phase 1 clinical trial shortly thereafter. We also expect to begin IND-enabling studies for our extracellular signal-related kinase 5, or ERK5, RAS signaling program in the second half of 2021. We have three tumor microenvironment product candidates, of which IK-175 and IK-007 are in Phase 1 and Phase 1b clinical development, respectively. Additionally, we expect to submit an IND for our third tumor microenvironment program, IK-412, in the second half of 2021. Consequently, we expect our expenses to significantly increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate and complete clinical trials of, and seek regulatory approval for, our product candidates. In addition, depending on the status of regulatory approval or, if we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. We may also need to raise additional funds sooner if we choose to pursue additional indications and/or geographies for our current or future product candidates or otherwise expand more rapidly than we presently anticipate. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate certain of our research and development programs or future commercialization efforts

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents will be sufficient to fund our operations through at least . However, our future capital requirements will depend on and could increase significantly as a result of many factors, including:

- the scope, progress, results and costs of product discovery, preclinical and clinical development, laboratory testing and clinical trials for our product candidates;
- the potential additional expenses attributable to adjusting our development plans (including any supply related matters) to the COVID-19 pandemic;

- the scope, prioritization and number of our research and development programs;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain additional collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under our existing collaboration agreements or any additional collaboration agreements we may establish;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under future collaboration agreements, if any;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other product candidates and technologies;
- the costs of securing manufacturing arrangements for clinical and commercial production;
- costs related to the development of any companion diagnostics we may use in the future; and
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory approvals to market our product candidates.

Identifying potential product candidates and conducting preclinical development testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenue, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives.

Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. Disruptions in the financial markets in general and more recently due to the COVID-19 pandemic may make equity and debt financing more difficult to obtain and may have a material adverse effect on our ability to meet our fundraising needs. We cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all.

If we are unable to obtain funding on a timely basis or on acceptable terms, we may be required to significantly curtail, delay or discontinue one or more of our research or development programs or the commercialization of any product that has received regulatory approval or be unable to expand our operations or otherwise capitalize on our business opportunities as desired, which could materially affect our business, financial condition and results of operations.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of private and public equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. The terms of any financing may adversely affect the holdings or the rights of our stockholders and the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our shares to decline. To the extent that we raise additional capital through the sale of common stock or securities convertible or exchangeable into common stock, your ownership interest will be diluted, and the terms of those securities may include liquidation or other preferences that may materially adversely affect your rights as a common stockholder. Debt financing, if available, would increase our fixed payment obligations and may involve

agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, acquiring, selling or licensing intellectual property rights, and making capital expenditures, declaring dividends or other operating restrictions that could adversely impact our ability to conduct our business. We could also be required to meet certain milestones in connection with debt financing and the failure to achieve such milestones by certain dates may force us to relinquish rights to some of our technologies or product candidates or otherwise agree to terms unfavorable to us which could have a material adverse effect on our business, operating results and prospects

We also could be required to seek funds through arrangements with additional collaborators or otherwise at an earlier stage than otherwise would be desirable. If we raise funds through additional collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, future revenue streams, research programs or product candidates, grant licenses on terms that may not be favorable to us or grant rights to develop and market our product candidates that we would otherwise prefer to develop and market ourselves, any of which may have a material adverse effect on our business, operating results and prospects.

Risks Related to the Development of our Targeted Oncology and Other Programs and Product Candidates

The COVID-19 pandemic, or a similar pandemic, epidemic, or outbreak of an infectious disease, may materially and adversely affect our business and our financial results and could cause a disruption to the development of our product candidates.

Public health crises such as pandemics or similar outbreaks could adversely impact our business. Recently, a novel strain of a virus named SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2), or coronavirus, which causes COVID-19 has spread to most countries across the world, including all 50 states within the U.S., including Boston, Massachusetts, where our primary office and laboratory space is located. The coronavirus pandemic is evolving, and has led to the implementation of various responses, including government-imposed quarantines, travel restrictions and other public health safety measures. The extent to which the coronavirus impacts our operations or those of our third party partners, including our preclinical studies or clinical trial operations, will depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the duration of the outbreak, new information that will emerge concerning the severity of the coronavirus and the actions to contain the coronavirus or treat its impact, among others. The continued spread of COVID-19 globally could adversely impact our preclinical or clinical trial operations in the U.S., including our ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19 if an outbreak occurs in their geography. For example, similar to other biopharmaceutical companies, we may experience delays in initiating IND-enabling studies, protocol deviations, enrolling our clinical trials, or dosing of patients in our clinical trials as well as in activating new trial sites. COVID-19 may also affect employees of third-party CROs located in affected geographies that we rely upon to carry out our clinical trials. In addition, as a result of medical complications associated with microsatellite stable colorectal cancer, or MSS CRC, the patient populations that our most advanced and other product candidates target may be particularly susceptible to COVID-19, which may make it more difficult for us to identify patients able to enroll in our current and future clinical trials and may impact the ability of enrolled patients to complete any such trials. Any negative impact COVID-19 has to patient enrollment or treatment or the execution of our product candidates could cause costly delays to clinical trial activities, which could adversely affect our ability to obtain regulatory approval for and to commercialize our product candidates, increase our operating expenses, and have a material adverse effect on our financial results.

Additionally, timely enrollment in planned clinical trials is dependent upon clinical trial sites which could be adversely affected by global health matters, such as pandemics. We plan to conduct clinical trials for our product candidates in geographies which are currently being affected by the COVID-19 pandemic. Some factors from the COVID-19 pandemic that will delay or otherwise adversely affect enrollment in the clinical trials of our product candidates, as well as our business generally, include:

- the potential diversion of healthcare resources away from the conduct of clinical trials to focus on pandemic concerns, including the attention of physicians serving as our clinical trial investigators, hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our prospective clinical trials;
- limitations on travel that could interrupt key trial and business activities, such as clinical trial site initiations and monitoring, domestic and international travel by employees, contractors or patients to clinical trial sites, including any government-imposed travel restrictions or quarantines that will impact the ability or willingness of patients, employees or contractors to travel to our clinical trial sites or secure visas or entry permissions, a loss of face-to-face meetings and other interactions with potential partners, any of which could delay or adversely impact the conduct or progress of our prospective clinical trials;
- the potential negative affect on the operations of our third-party manufacturers;
- interruption in global shipping affecting the transport of clinical trial materials, such as patient samples, investigational drug product and conditioning drugs and other supplies used in our prospective clinical trials;
- business disruptions caused by potential workplace, laboratory and office closures and an increased reliance on employees working from home, disruptions to or delays in ongoing laboratory experiments;
- operations, staffing shortages, travel limitations or mass transit disruptions, any of which could adversely impact our business operations or delay necessary interactions with local regulators, ethics committees and other important agencies and contractors;
- changes in local regulations as part of a response to the COVID-19 pandemic, which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue such clinical trials altogether; and
- interruption or delays in the operations of the FDA or other regulatory authorities, which may impact review and approval timelines.

We have taken temporary precautionary measures intended to help minimize the risk of the virus to our employees, including temporarily requiring certain of our employees to work remotely, suspending all non-essential travel worldwide for our employees and discouraging employee attendance at industry events and in-person work-related meetings, which could negatively affect our business. We cannot presently predict the scope and severity of the planned and potential shutdowns or disruptions of businesses and government agencies, such as the Securities and Exchange Commission, or the SEC, or FDA.

These and other factors arising from COVID-19 could worsen in countries that are already afflicted with COVID-19 or could continue to spread to additional countries. Any of these factors, and other factors related to any such disruptions that are unforeseen, could have a material adverse effect on our business and our results of operation and financial condition. Further, uncertainty around these and related issues could lead to adverse effects on the economy of the United States and other economies, which could impact our ability to raise the necessary capital needed to develop and commercialize our programs and product candidates.

We have never successfully completed any clinical trials for our oncology programs, and we may be unable to do so for any product candidates we develop. Certain of our oncology programs are still in preclinical development and may never advance to clinical development.

We have not yet demonstrated our ability to successfully complete clinical trials, including large-scale, pivotal clinical trials, obtain regulatory approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization. Our targeted oncology programs are still in preclinical development and may never advance to clinical development. We plan to file an IND for our IK-930 program in the second half of 2021 and expect to begin a Phase 1 clinical trial shortly thereafter. We expect to begin IND-enabling studies for our ERK5 RAS signaling program in the second half of 2021. Additionally, we expect to submit an IND for our third tumor microenvironment program, IK-412, in the second half of 2021. We may not be able to file such IND or INDs for any of our other product candidates on the timelines we expect, if at all. Moreover, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that require us to suspend or terminate clinical trials. Commencing each of these clinical trials is subject to finalizing the trial design based on discussions with the FDA and other regulatory authorities. Any guidance we receive from the FDA or other regulatory authorities is subject to change. These regulatory authorities could change their position, including on the acceptability of our trial designs or the clinical endpoints selected, which may require us to complete additional clinical trials or result in the composition of stricter approval conditions than we currently expect. Successful completion of our clinical trials is a prerequisite to submitting a new drug application, or NDA, or a biologics license application, or BLA, to the FDA, a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMA, or other marketing applications to regulatory authorities in other jurisdictions, for each product candidate and, consequently, the regulatory approval of each product candidate. We currently only have two product candidates from our tumor microenvironment program in clinical development. We are conducting a Phase 1 trial with IK-175 in patients with bladder cancer with activated aryl hydrocarbon receptor, or AHR, and a Phase 1b trial with IK-007 in combination with pembrolizumab for the treatment of patients with advanced or progressive microsatellite stable colorectal cancer, or MSS CRC. However, we do not know whether these or any of our future clinical trials will begin on time or be completed on schedule, if at all.

If we are required to conduct additional preclinical studies or clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining regulatory approval for our product candidates;
- not obtain regulatory approval at all;
- obtain regulatory approval for indications or patient populations that are not as broad as intended or desired;
- continue to be subject to post-marketing testing requirements; or
- experience having the product removed from the market after obtaining regulatory approval.

Our programs are focused on the development of oncology therapeutics for patients with genetically defined or biomarker-driven cancers, which is a rapidly evolving area of science, and the approach we are taking to discover and develop drugs is novel and may never lead to approved or marketable products.

The discovery and development of oncology therapeutics for patients with genetically defined or biomarker-driven cancers is an emerging field, and the scientific discoveries that form the basis for our efforts to discover and develop product candidates are relatively new. The scientific evidence to support the feasibility of developing product candidates based on these discoveries is both preliminary and limited. Although we believe, based on our preclinical work, that the genetic alterations targeted by our programs drive the formation and

spread of cancer, clinical results may not confirm this hypothesis or may only confirm it for certain alterations or certain tumor types. The patient populations for our product candidates are limited to those with specific target alterations and may not be completely defined but are substantially smaller than the general treated cancer population, and we will need to screen and identify these patients with targeted alterations. Successful identification of patients is dependent on several factors, including achieving certainty as to how specific alterations respond to our product candidates and the ability to identify such alterations. Furthermore, even if we are successful in identifying patients with specific target alterations, we cannot be certain that the resulting patient populations for each mutation will be large enough to allow us to successfully obtain approval for each mutation type and commercialize our product candidates and achieve profitability.

Clinical product development involves a lengthy and expensive process, with an uncertain outcome.

Our preclinical studies and future and ongoing clinical trials may not be successful. Currently, all our targeted oncology programs are in preclinical development. It is impossible to predict when or if any of our product candidates will prove effective and safe in humans or will receive regulatory approval. Before obtaining regulatory approval from regulatory authorities for the sale of any product candidate, we must complete preclinical studies and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and outcomes are uncertain. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical development testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain regulatory approval of their product candidates. Our preclinical studies and future and ongoing clinical trials may not be successful.

If we are unable to successfully validate, develop and obtain regulatory approval for companion diagnostic tests for our product candidates that require or would commercially benefit from such tests, or experience significant delays in doing so, we may not realize the full commercial potential of these product candidate.

In connection with the clinical development of our product candidates for certain indications, we may engage third parties to develop or otherwise obtain access to *in vitro* companion diagnostic tests to identify patient subsets within a disease category who may derive selective and meaningful benefit from our product candidates. Such companion diagnostics would be used during our clinical trials as well as in connection with the commercialization of our products that receive regulatory approval. To be successful, we or our collaborators will need to address a number of scientific, technical, regulatory and logistical challenges. The FDA and comparable foreign regulatory authorities regulate *in vitro* companion diagnostics as medical devices and, under that regulatory framework, will likely require the conduct of clinical trials to demonstrate the safety and effectiveness of any diagnostics we may develop, which we expect will require separate regulatory clearance or approval prior to commercialization.

We intend to rely on third parties for the design, development and manufacture of companion diagnostic tests for our therapeutic product candidates that may require such tests. If we enter into such collaborative agreements, we will be dependent on the sustained cooperation and effort of our future collaborators in developing and obtaining approval for these companion diagnostics. It may be necessary to resolve issues such as selectivity/specificity, analytical validation, reproducibility, or clinical validation of companion diagnostics during the development and regulatory approval processes. Moreover, even if data from preclinical studies and early clinical trials appear to support development of a companion diagnostic for a product candidate, data generated in later clinical trials may fail to support the analytical and clinical validation of the companion diagnostic. We and our future collaborators may encounter difficulties in developing, obtaining regulatory approval for, manufacturing and commercializing companion diagnostics similar to those we face with respect to our therapeutic product candidates themselves, including issues with achieving regulatory clearance or approval, production of sufficient

quantities at commercial scale and with appropriate quality standards, and in gaining market acceptance. If we are unable to successfully develop companion diagnostics for these therapeutic product candidates, or experience delays in doing so, the development of these therapeutic product candidates may be adversely affected, these therapeutic product candidates may not obtain regulatory approval, and we may not realize the full commercial potential of any of these therapeutic products that obtain regulatory approval. As a result, our business, results of operations and financial condition could be materially harmed. In addition, a diagnostic company with whom we contract may decide to discontinue selling or manufacturing the companion diagnostic test that we anticipate using in connection with development and commercialization of our product candidates or our relationship with such diagnostic company may otherwise terminate. We may not be able to enter into arrangements with another diagnostic company to obtain supplies of an alternative diagnostic test for use in connection with the development and commercialization of our product candidates or do so on commercially reasonable terms, which could adversely affect and/or delay the development or commercialization of our therapeutic product candidates.

Interim, top-line, and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to confirmation, audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose interim, top-line or preliminary data from our clinical trials, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the interim, top-line or preliminary results that we report may differ from future results of the same trials, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Interim data from clinical trials are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary, interim or top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary top-line data we previously published. As a result, preliminary, interim and top-line data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects and may cause the price of our common stock to fluctuate or decline.

Further, regulatory agencies and others, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could adversely impact the potential of the particular program, the likelihood of obtaining regulatory approval of the particular product candidate, commercialization of any approved product and the business prospects of our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is derived from information that is typically extensive, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure.

If the preliminary, interim or top-line data that we report differ from actual results, or if regulatory authorities or others, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be significantly impaired, which could materially harm our business, operating results, prospects or financial condition.

We may incur additional costs or experience delays in initiating or completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

We may experience delays in initiating or completing our preclinical studies or clinical trials, including as a result of delays in obtaining, or failure to obtain, the FDA's clearance to initiate clinical trials under future INDs. Additionally, we cannot be certain that preclinical studies or clinical trials for our product candidates will not require redesign, will enroll an adequate number of subjects on time, or will be completed on schedule, if at all. We may experience numerous unforeseen events during, or as a result of, preclinical studies and clinical trials

that could delay or prevent our ability to receive regulatory approval or commercialize our product candidates, including:

- we may receive feedback from regulatory authorities that require us to modify the design or implementation of our preclinical studies or clinical trials or to delay or terminate a clinical trial;
- regulators or institutional review boards, or IRBs, or ethics committees may delay or may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective clinical research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- preclinical studies or clinical trials of our product candidates may fail to show safety or efficacy or otherwise produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials, or we may decide to abandon product research or development programs;
- preclinical studies or clinical trials of our product candidates may not produce differentiated or clinically significant results across tumor types or indications;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;
- our third party contractors may fail to comply with regulatory requirements, fail to maintain adequate quality controls, be unable to provide us with sufficient product supply to conduct or complete preclinical studies or clinical trials, fail to meet their contractual obligations to us in a timely manner, or at all, or may deviate from the clinical trial protocol or drop out of the trial, which may require that we add new clinical trial sites or investigators;
- we may elect to, or regulators or IRBs or ethics committees may require us or our investigators to, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants in our clinical trials are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- clinical trials of our product candidates may be delayed due to complications associated with the evolving COVID-19 pandemic;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or IRBs or ethics committees to suspend or terminate the trials, or reports may arise from preclinical or clinical testing of other cancer therapies that raise safety or efficacy concerns about our product candidates; and
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate

We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions at which such trials are being conducted, by the Data Safety Monitoring Board, or DSMB, for such trial or by the FDA or other regulatory authorities. Such authorities may impose such a suspension or termination or clinical hold due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, adverse findings upon an inspection of the clinical trial operations or trial

site by the FDA or other regulatory authorities, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates. Further, the FDA may disagree with our clinical trial design or our interpretation of data from clinical trials or may change the requirements for approval even after it has reviewed and commented on the design for our clinical trials.

Moreover, principal investigators for our current and future clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA or comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authority may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected the interpretation of the study. The FDA or comparable foreign regulatory authority may therefore question the integrity of the data generated at the applicable clinical trial site, and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA or comparable foreign regulatory authority, as the case may be, and may ultimately lead to the denial of regulatory approval of one or more of our product candidates.

Our product development costs will also increase if we experience delays in testing or regulatory approvals. We do not know whether any of our future clinical trials will begin as planned, or whether any of our current or future clinical trials will need to be restructured or will be completed on schedule, if at all. Significant preclinical study or clinical trial delays, including those caused by the COVID-19 pandemic, also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do, which would impair our ability to successfully commercialize our product candidates and may significantly harm our business, operating results, financial condition and prospects.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or comparable foreign regulatory authorities, or as needed to provide appropriate statistical power for a given trial. In particular, because we are focused on patients with specific genetic mutations for the development of our targeted oncology programs, and on patients with specific biomarkers for the development of our tumor microenvironment programs, our ability to enroll eligible patients may be limited or may result in slower enrollment than we anticipate.

We may experience difficulties with identifying specific patient populations for any biomarker-defined trial cohorts. The patient eligibility criteria defined in our trial protocols, including biomarker-driven identification may limit the patient populations eligible for our clinical trials to a greater extent than competing clinical trials for the same indication that do not have biomarker-driven patient eligibility criteria. We will also rely on the willingness and ability of clinicians to screen their patients for biomarkers to indicate which patients may be eligible for enrollment in our clinical trials.

In addition, some of our competitors have ongoing clinical trials for product candidates that treat the same indications as do our product candidates, and patients who would otherwise be eligible for our clinical trials may choose instead to enroll in clinical trials of our competitors' product candidates. Furthermore, our ability to enroll patients may be significantly delayed by the evolving COVID-19 pandemic, and we cannot accurately predict the extent and scope of such delays at this point.

In addition to the competitive trial environment, the eligibility criteria of our planned clinical trials will further limit the pool of available study participants as we will require that patients have specific characteristics that we

can measure to assure their cancer is either severe enough or not too advanced to include them in a study. Additionally, the process of finding patients may prove costly. We also may not be able to identify, recruit or enroll a sufficient number of patients to complete our clinical studies because of the perceived risks and benefits of the product candidates under study, the availability and efficacy of competing therapies and clinical trials, the proximity and availability of clinical trial sites for prospective patients, and the patient referral practices of physicians. If patients are unwilling to participate in our studies for any reason, the timeline for recruiting patients, conducting studies and obtaining regulatory approval of potential products may be delayed.

We may also engage third parties to develop companion diagnostics for use in our clinical trials, but such third parties may not be successful in developing such companion diagnostics, limiting our ability to identify patients with the targeted genetic mutations for our clinical trials. Further, if we are required to develop companion diagnostics and are unable to include patients with the targeted genetic mutations, this could compromise our ability to seek participation in the FDA's expedited review and development programs, including Breakthrough Therapy Designation and Fast Track Designation, or otherwise seek to accelerate clinical development and regulatory timelines. Patient enrollment may be affected by other factors, including:

- the severity of the disease under investigation;
- the efforts to obtain and maintain patient consents and facilitate timely enrollment in clinical trials;
- the ability to monitor patients adequately during and after treatment;
- the risk that patients enrolled in clinical trials will drop out of the clinical trials before clinical trial completion;
- the ability to recruit clinical trial investigators with the appropriate competencies and experience;
- reporting of the preliminary results of any of our clinical trials; and
- factors we may not be able to control, including the impacts of the COVID-19 pandemic, that may limit patients, principal investigators or staff or clinical site availability.

We anticipate that certain of our current product candidates and future product candidates will be used in combination with third-party drugs or biologics, some of which are still in development, and we have limited or no control over the supply, regulatory status, or regulatory approval of such drugs or biologics.

Certain of our current product candidates and any future product candidates have the potential to be administered in combination with checkpoint inhibitor immunotherapies or other standards of care like chemotherapies, targeted therapies or radiotherapy. For example, we plan to explore combinations of IK-930 in combination with epidermal growth factor receptor, or EGFR, inhibitors in certain indications and to evaluate IK-175 and IK-412 in combination with nivolumab, which is marketed by Bristol-Myers Squibb Company, or BMS. We are also currently conducting a Phase 1b clinical trial of IK-007 in combination with pembrolizumab, which is marketed by Merck. Our ability to develop and ultimately commercialize our current programs and product candidates and any future programs or product candidates used in combination with EGFR inhibitors, nivolumab, pembrolizumab, or other checkpoint inhibitor immunotherapies will depend on our ability to access such drugs or biologics on commercially reasonable terms for the clinical trials and their availability for use with our commercialized product, if approved. We cannot be certain that current or potential future commercial relationships will provide us with a steady supply of such drugs or biologics on commercially reasonable terms or at all.

Any failure to maintain or enter into new successful commercial relationships, or the expense of purchasing checkpoint inhibitor immunotherapies or other comparator therapies in the market, may delay our development timelines, increase our costs and jeopardize our ability to develop our current product candidates and any future product candidates as commercially viable therapies. If any of these occur, our business, financial condition, operating results, stock price and prospects may be materially harmed.

Moreover, the development of product candidates for use in combination with another product or product candidate may present challenges that are not faced for single agent product candidates. The FDA or comparable foreign regulatory authorities may require us to use more complex clinical trial designs in order to evaluate the contribution of each product and product candidate to any observed effects. It is possible that the results of such trials could show that any positive previous trial results are attributable to the combination therapy and not our current product candidates and any future product candidates. Moreover, following product approval, the FDA or comparable foreign regulatory authorities may require that products used in conjunction with each other be cross labeled for combined use. To the extent that we do not have rights to the other product, this may require us to work with a third party to satisfy such a requirement. Moreover, developments related to the other product may impact our clinical trials for the combination as well as our commercial prospects should we receive regulatory approval. Such developments may include changes to the other product's safety or efficacy profile, changes to the availability of the other product, quality, manufacturing and supply issues with respect to the other product, and changes to the standard of care.

In the event that BMS, Merck or any future collaborator or supplier cannot continue to supply their products on commercially reasonable terms, we would need to identify alternatives for accessing checkpoint inhibitor immunotherapies. Additionally, should the supply of products from any current or future collaborator or supplier be interrupted, delayed or otherwise be unavailable to us, our clinical trials may be delayed. In the event we are unable to source an alternative supply, or are unable to do so on commercially reasonable terms, our business, financial condition, operating results, stock price and prospects may be materially harmed.

Results from early preclinical studies and clinical trials of our programs and product candidates are not necessarily predictive of the results of later preclinical studies and clinical trials of our programs and product candidates. If we cannot replicate the results from our earlier preclinical studies and clinical trials of our programs and product candidates in our later preclinical studies and clinical trials, we may be unable to successfully develop, obtain regulatory approval for and commercialize our product candidates.

Any results from our early preclinical studies and clinical trials of our targeted oncology and tumor microenvironment programs or our product candidates may not necessarily be predictive of the results from later preclinical studies and clinical trials. Similarly, even if we are able to complete our planned preclinical studies and clinical trials of our product candidates according to our current development timeline, the results from such preclinical studies and clinical trials of our product candidates may not be replicated in subsequent preclinical studies or clinical trial results.

Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, preclinical and other nonclinical findings made while clinical trials were underway, or safety or efficacy observations made in preclinical studies and clinical trials, including previously unreported adverse events. Moreover, preclinical, nonclinical and clinical data are often susceptible to varying interpretations and analyses and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain regulatory approval.

We may not be able to file INDs for our targeted oncology and other programs to commence clinical trials on the timelines we expect, and even if we are able to, the FDA may not permit us to proceed.

For our targeted oncology program, we expect to file an IND for IK-930 and IK-412 in the second half of 2021 and to initiate IND-enabling studies for our ERK5 program in the second half of 2022. However, we may not be able to file such INDs or INDs for future product candidates for our targeted oncology or other programs on the timelines we expect. For example, we may experience manufacturing delays or other delays with IND-enabling studies. Moreover, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate clinical trials. Additionally, even if the FDA agrees with the design and implementation of the clinical trials set forth in an IND, we cannot guarantee

that it will not change its requirements in the future. These considerations also apply to new clinical trials we may submit as amendments to existing INDs or to a new IND. Any failure to file INDs on the timelines we expect or to obtain regulatory approvals for our planned clinical trials may prevent us from initiating or completing our clinical trials or commercializing our product candidates on a timely basis, if at all.

Our clinical trials or those of our current or future collaborators may reveal significant adverse events not seen in our preclinical or nonclinical studies and may result in a safety profile that could inhibit regulatory approval or market acceptance of any of our product candidates.

Before obtaining regulatory approvals for the commercial sale of any products, we must demonstrate through lengthy, complex and expensive preclinical studies and clinical trials that our product candidates are both safe and effective for use in each target indication. Clinical testing is expensive and can take many years to complete, and outcomes are inherently uncertain. Failure can occur at any time during the clinical trial process. Because our targeted oncology programs and our product candidates are in an early stage of development, there is a high risk of failure, and we may never succeed in developing marketable products. There is typically an extremely high rate of attrition from the failure of product candidates proceeding through clinical trials. Product candidates in later stages of clinical trials also may fail to show the desired safety and efficacy profile despite having progressed through nonclinical studies and initial clinical trials. For example, we conducted a second open-label single arm Phase 1b clinical trial of IK-007 in combination with pembrolizumab in patients with advanced or metastatic post anti-PD- 1/L1 treatment in non-small-cell lung carcinoma, or NSCLC, but based on the combined data generated in the interim period for efficacy and safety, we decided not to further explore this combination in NSCLC and terminated this clinical trial in December 2020. If the results of our ongoing or future preclinical studies and clinical trials are inconclusive with respect to the safety and efficacy of our product candidates, if we do not meet the clinical endpoints with statistical and clinically meaningful significance, or if there are safety concerns associated with our product candidates, we may be prevented from, or delayed in, obtaining regulatory approval for such product candidates. In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the clinical trial protocols and the rate of dropout among clinical trial participants. While we have not yet initiated clinical trials for our targeted oncology programs and are in early stages of clinical trials for IK-175 and IK-007, our tumor microenvironment programs, it is likely, as is the case with many oncology therapies, that there may be side effects associated with their use. Results of our trials could reveal a high and unacceptable severity and prevalence of side effects. In such an event, our trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims.

Further, our product candidates could cause undesirable side effects in clinical trials related to on-target toxicity. If on-target toxicity is observed, or if our product candidates have characteristics that are unexpected, we may need to abandon their development or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. In addition, our product candidates could cause undesirable side effects that we have not yet observed. Many compounds that initially showed promise in early stage testing for treating cancer have later been found to cause side effects that prevented further development of the compound. Most product candidates that commence clinical trials are never approved as products, and there can be no assurance that any of our current or future clinical trials will ultimately be successful or support further clinical development or regulatory approval of any of our product candidates.

We may develop future product candidates, in combination with one or more cancer therapies. The uncertainty resulting from the use of our product candidates in combination with other cancer therapies may make it difficult to accurately predict side effects in future clinical trials. As is the case with many treatments for cancer and rare diseases, it is likely that there may be side effects associated with the use of our product candidates. If significant

adverse events or other side effects are observed in any of our current or future clinical trials, we may have difficulty recruiting patients to our clinical trials, patients may drop out of our trials, or we may be required to abandon the trials or our development efforts of one or more product candidates altogether. We, the FDA or other applicable regulatory authorities, or an IRB may suspend or terminate clinical trials of a product candidate at any time for various reasons, including a belief that subjects in such trials are being exposed to unacceptable health risks or adverse side effects. Some potential therapeutics developed in the biotechnology industry that initially showed therapeutic promise in early-stage trials have later been found to cause side effects that prevented their further development. Even if the side effects do not preclude the product from obtaining or maintaining regulatory approval, undesirable side effects may inhibit market acceptance of the approved product due to its tolerability versus other therapies. Any of these developments could materially harm our business, operating results, financial condition and prospects.

Some of our product candidates modulate pathways for which there are currently no approved or effective therapies, and utilize novel binding locations, which may result in greater research and development expenses, regulatory issues that could delay or prevent approval, or discovery of unknown or unanticipated adverse effects.

Some of our product candidates modulate pathway for which there are currently no approved or effective therapies, which may result in uncertainty. We select programs for cancer driver targets based on compelling biological rationale. We explore new programs based on extensive preclinical data analysis which sometimes cannot predict efficacy or safety in humans.

Some of our product candidates utilize novel binding locations, which may result in greater research and development expenses, regulatory issues that could delay or prevent approval, or discovery of unknown or unanticipated adverse effects. We utilize structural biology in tight integration with our medicinal chemistry and biology capabilities to predict and design the compounds that will achieve the most desirable characteristics, including potency, selectivity, bioavailability, and drug-like properties. A disruption in any of these capabilities may have significant adverse effects in our ability to expand our pipeline of product candidates, and we cannot predict whether we will continue to have access to these capabilities in the future to support our pipeline development. In addition, there can be no assurance that we will be able to rapidly identify, design and synthesize the necessary compounds or that these or other problems related to the development of product candidates will not arise in the future, which may cause significant delays or we raise problems we may not be able to resolve.

Regulatory approval of novel product candidates such as ours can be more expensive, riskier and take longer than for other, more well-known or extensively studied pharmaceutical or biopharmaceutical product candidates due to our and regulatory agencies' lack of experience with them. The novelty of the mechanism of action of any of our product candidates may lengthen the regulatory review process, require us to conduct additional studies or clinical trials, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our product candidates or lead to significant post-approval limitations or restrictions. The novel mechanism of action also means that fewer people are trained in or experienced with product candidates of this type, which may make it more difficult to find, hire and retain personnel for research, development and manufacturing positions. If our inhibitors utilize a novel mechanism of action that has not been the subject of extensive study compared to more well-known product candidates, there is also an increased risk that we may discover previously unknown or unanticipated adverse effects during our preclinical studies and clinical trials. Any such events could adversely impact our business prospects, operating results and financial condition.

We may in the future conduct clinical trials for our product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

We may in the future choose to conduct additional clinical trials outside the United States, including in Europe, Australia or other foreign jurisdictions. The acceptance of trial data from clinical trials conducted outside the

United States by the FDA may be subject to certain conditions. In cases where data from clinical trials conducted outside the United States are intended to serve as the sole basis for regulatory approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the United States population and United States medical practices, (ii) the trials were performed by clinical investigators of recognized competence and (iii) the data may be considered valid without the need for an on-site inspection by the FDA or, if the FDA considers such an inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. Additionally, the FDA's clinical trial requirements, including sufficient size of patient populations and statistical powering, must be met. Many foreign regulatory bodies have similar approval requirements. In addition, such foreign trials would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any comparable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA or any comparable foreign regulatory authority does not accept such data, it would result in the need for additional trials, which would be costly and time-consuming and delay aspects of our business plan, and which may result in our product candidates not receiving regulatory approval or clearance for commercialization in the applicable jurisdiction.

Although we intend to explore other therapeutic opportunities in addition to the programs and product candidates that we are currently developing, we may fail to identify viable new product candidates for clinical development for a number of reasons. If we fail to identify additional product candidates, our business could be materially harmed.

Research programs to pursue the development of our existing and planned product candidates for additional indications and to identify new product candidates and disease targets require substantial technical, financial and human resources whether or not they are ultimately successful. Our research programs may initially show promise in identifying potential indications and/or product candidates, yet fail to yield results for clinical development for a number of reasons, including:

- the research methodology used may not be successful in identifying potential indications and/or product candidates;
- potential product candidates may, after further study, be shown to have harmful adverse effects or other characteristics that indicate they are unlikely to be effective products; or
- it may take greater human and financial resources than we will possess to identify additional therapeutic opportunities for our product candidates or to develop suitable potential product candidates through internal research programs, thereby limiting our ability to develop, diversify and expand our product portfolio.

Because we have limited financial and human resources, we intend to initially focus on research programs and product candidates for a limited set of indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential or a greater likelihood of success. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities.

Accordingly, there can be no assurance that we will ever be able to identify additional therapeutic opportunities for our product candidates or to develop suitable product candidates through internal research programs, which could materially adversely affect our future growth and prospects. We may focus our efforts and resources on potential product candidates or other potential programs that ultimately prove to be unsuccessful.

If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals for our product candidates, we will not be able to commercialize, or will be delayed in commercializing, our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising,

promotion, sale, distribution, import and export are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable foreign regulatory authorities. Before we can commercialize any of our product candidates, we must obtain regulatory approval. Currently, all of our product candidates are in discovery, preclinical or clinical development, and we have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. It is possible that our product candidates, including any product candidates we may seek to develop in the future, will never obtain regulatory approval. We have limited experience in filing and supporting the applications necessary to gain regulatory approvals and expect to rely on third-party CROs and/or regulatory consultants to assist us in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing regulatory approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use. In addition, regulatory authorities may find fault with our manufacturing process or facilities or that of third-party contract manufacturers. We may also face greater than expected difficulty in manufacturing our product candidates.

The process of obtaining regulatory approvals, both in the United States and abroad, is expensive and often takes many years. If the FDA or a comparable foreign regulatory authority requires that we perform additional preclinical studies or clinical trials, approval may be delayed, if obtained at all. The length of such a delay varies substantially based upon a variety of factors, including the type, complexity and novelty of the product candidate involved. Changes in regulatory approval policies during the development period, changes in or enactment of additional statutes or regulations, or changes in regulatory review policies for each submitted NDA, BLA, premarket approval application, or PMA, or equivalent application types, may cause delays in the approval or rejection of an application. The FDA and comparable foreign regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. Our product candidates could be delayed in receiving, or fail to receive, regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may not be able to enroll a sufficient number of patients in our clinical studies;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication or a related companion diagnostic is suitable to identify appropriate patient populations;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of an NDA, BLA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may find deficiencies with or fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and

- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change such that our clinical data are insufficient for approval.

Even if we were to obtain regulatory approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, thereby narrowing the commercial potential of the product candidate. In addition, regulatory authorities may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

If we experience delays in obtaining, or if we fail to obtain, approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenue will be materially impaired.

Risks Related to Commercialization

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new products in the biopharmaceutical and related industries is highly competitive. We compete in the segments of the pharmaceutical, biotechnology, and other related markets that address structural biology-guided chemistry-based drug design to develop therapies in the fields of cancer and genetic diseases. There are other companies focusing on targeted oncology to develop therapies in the fields of cancer and other diseases. We also compete more broadly across the market for cost-effective and reimbursable cancer treatments. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. These companies include divisions of large pharmaceutical companies and biotechnology companies of various sizes. We face competition with respect to our current product candidates, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Any product candidates that we successfully develop and commercialize will compete with currently approved therapies and new therapies that may become available in the future from segments of the pharmaceutical, biotechnology and other related markets. Key product features that would affect our ability to effectively compete with other therapeutics include the efficacy, safety and convenience of our products. We believe principal competitive factors to our business include, among other things, our ability to identify biomarkers, ability to successfully transition research programs into clinical development, ability to raise capital, and the scalability of the platform, pipeline, and business.

Many of the companies that we compete against or which we may compete against in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. If these or other barriers to entry do not remain in place, other companies may be able to more directly or effectively compete with us.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we or our collaborators may develop. Our competitors also may obtain FDA or other regulatory approval for their products sooner than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we or our collaborators are able to enter the market. The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, safety, convenience, price, level of generic competition and availability of reimbursement from government and other third-party payors.

If the market opportunities for our programs and product candidates are smaller than we estimate or if any regulatory approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.

The incidence and prevalence for target patient populations of our programs and product candidates have not been established with precision. Our lead targeted oncology product candidate, IK-930, is an oral small molecule inhibitor of the transcriptional enhanced associate domain, or TEAD, transcription factor in the Hippo signaling pathway. The Hippo pathway is genetically altered in approximately 10% of all cancers and these genetic alterations are generally associated with poor clinical outcomes. We are developing a small molecule inhibitor program against ERK5 in the RAS signaling pathway. KRAS mutations in the RAS signaling pathway occur in approximately 26% of all cancers. Additionally, we are currently evaluating the safety and tolerability of IK-175 in a Phase 1 dose expansion clinical trial in patients with solid tumors and intend to pursue development in patients with bladder cancer with activated AHR. AHR amplifications have been described in approximately 5% to 22% of bladder cancer patients. We are also developing IK-007 in a Phase 1b clinical trial in patients with MSS CRC. Patients with MSS CRC represent approximately 80% of all colorectal cancer patients, and these patients generally do not respond to approved checkpoint inhibitors. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our programs and product candidates, are based on our estimates.

The total addressable market opportunity will ultimately depend upon, among other things, the diagnosis criteria included in the final label, the indications for which our product candidates are approved for sale, acceptance by the medical community and patient access, product pricing and reimbursement. The number of patients with the cancers and solid tumors for which our product candidates may be approved as treatment may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our products, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business. We may not be successful in our efforts to identify additional product candidates. Due to our limited resources and access to capital, we must prioritize development of certain product candidates, which may prove to be the wrong choice and may adversely affect our business.

If our current product candidates or any future product candidates do not achieve broad market acceptance, the revenue that we generate from their sales may be limited, and we may never become profitable.

We have never commercialized a product candidate for any indication. Even if our current product candidates and any future product candidates are approved by the appropriate regulatory authorities for marketing and sale, they may not gain acceptance among physicians, patients, third-party payors, and others in the medical community. If any product candidates for which we obtain regulatory approval do not gain an adequate level of market acceptance, we may not generate significant revenue and may not become profitable or may be significantly delayed in achieving profitability. Market acceptance of our current product candidates and any future product candidates by the medical community, patients and third-party payors will depend on a number of factors, some of which are beyond our control. For example, physicians are often reluctant to switch their patients, and patients may be reluctant to switch, from existing therapies even when new and potentially more effective or safer treatments enter the market. If public perception is influenced by claims that the use of cancer immunotherapies is unsafe, whether related to our or our competitors' products, our products may not be

accepted by the general public or the medical community. Future adverse events in targeted oncology, immuno-oncology or the biopharmaceutical industry could also result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approvals of our product candidates.

Efforts to educate the medical community and third-party payors on the benefits of our current product candidates and any future product candidates may require significant resources and may not be successful. If our current product candidates or any future product candidates are approved but do not achieve an adequate level of market acceptance, we could be prevented from or significantly delayed in achieving profitability. The degree of market acceptance of any of our current product candidates and any future product candidates will depend on a number of factors, including:

- the efficacy of our current product candidates and any future product candidates as single agents and in combination with marketed checkpoint inhibitor immunotherapies;
- the commercial success of the checkpoint blockade drugs with which our products may be co-administered;
- the prevalence and severity of adverse events associated with our current product candidates and any future product candidates or those products with which they may be co-administered;
- the clinical indications for which our product candidates are approved and the approved claims that we may make for the products;
- limitations or warnings contained in the product's FDA-approved labeling or those of comparable foreign regulatory authorities, including potential limitations or warnings for our current product candidates and any future product candidates that may be more restrictive than other competitive products;
- changes in the standard of care for the targeted indications for our current product candidates and any future product candidates, which could reduce the marketing impact of any claims that we could make following FDA approval or approval by comparable foreign regulatory authorities, if obtained;
- the relative convenience and ease of administration of our current product candidates and any future product candidates and any products with which they are co-administered;
- the cost of treatment compared with the economic and clinical benefit of alternative treatments or therapies;
- the availability of adequate coverage or reimbursement by third party payors, including government healthcare programs such as Medicare and Medicaid and other healthcare payors;
- the price concessions required by third-party payors to obtain coverage;
- the willingness of patients to pay out-of-pocket in the absence of adequate coverage and reimbursement;
- the extent and strength of our marketing and distribution of our current product candidates and any future product candidates;
- the safety, efficacy, and other potential advantages over, and availability of, alternative treatments already used or that may later be approved;
- distribution and use restrictions imposed by the FDA or comparable foreign regulatory authorities with respect to our current product candidates and any future product candidates or to which we agree as part of a risk evaluation and mitigation strategy, or REMS, or voluntary risk management plan;
- the timing of market introduction of our current product candidates and any future product candidates, as well as competitive products;
- our ability to offer our current product candidates and any future product candidates for sale at competitive prices;

- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the extent and strength of our third-party manufacturer and supplier support;
- the actions of companies that market any products with which our current product candidates and any future product candidates may be co-administered;
- the approval of other new products;
- adverse publicity about our current product candidates and any future product candidates or any products with which they are co-administered, or favorable publicity about competitive products; and
- potential product liability claims.

Risks Related to Our Reliance on Third Parties

We rely on third parties to conduct our Phase 1 clinical trial of IK-175 and Phase 1b clinical trial of IK-007 and expect to rely on third parties to conduct clinical trials for our targeted oncology and other tumor microenvironment programs, as well as investigator-sponsored clinical trials of our product candidates. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We do not have the ability to independently conduct clinical trials. We rely and expect to continue to rely on medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct or otherwise support clinical trials for our product candidates, including our Phase 1 clinical trial of IK-175 and Phase 1b clinical trial of IK-007, as well as IK-930 and any other product candidates that emerge from our targeted oncology and tumor microenvironment programs. We may also rely on academic and private non-academic institutions to conduct and sponsor clinical trials relating to our product candidates. We will not control the design or conduct of the investigator-sponsored trials, and it is possible that the FDA or non-U.S. regulatory authorities will not view these investigator-sponsored trials as providing adequate support for future clinical trials, whether controlled by us or third parties, for any one or more reasons, including elements of the design or execution of the trials or safety concerns or other trial results.

Such arrangements will likely provide us certain information rights with respect to the investigator-sponsored trials, including access to and the ability to use and reference the data, including for our own regulatory filings, resulting from the investigator-sponsored trials. However, we would not have control over the timing and reporting of the data from investigator-sponsored trials, nor would we own the data from the investigator-sponsored trials. If we are unable to confirm or replicate the results from the investigator-sponsored trials or if negative results are obtained, we would likely be further delayed or prevented from advancing further clinical development of our product candidates. Further, if investigators or institutions breach their obligations with respect to the clinical development of our product candidates, or if the data proves to be inadequate compared to the first-hand knowledge we might have gained had the investigator-sponsored trials been sponsored and conducted by us, then our ability to design and conduct any future clinical trials ourselves may be adversely affected.

We rely and expect to continue to rely heavily on these parties for execution of clinical trials for our product candidates and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal and regulatory requirements and scientific standards, and our reliance on CROs will not relieve us of our regulatory responsibilities. For any violations of laws and regulations during the conduct of our clinical trials, we could be subject to warning letters or enforcement action that may include civil penalties up to and including criminal prosecution.

We, our principal investigators and our CROs are required to comply with regulations, including Good Clinical Practices, or GCPs, for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate, and that the trial patients are adequately informed of the potential risks of participating in clinical trials and their rights are protected. These regulations are enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for any products in clinical development. The FDA enforces GCP regulations through periodic inspections of clinical trial sponsors, principal investigators and trial sites. If we, our principal investigators or our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, the FDA will determine that any of our future clinical trials will comply with GCPs. In addition, our clinical trials must be conducted with product candidates produced under current Good Manufacturing Practice, or cGMP, regulations. Our failure or the failure of our principal investigators or CROs to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process, significantly increase our expenditures and could also subject us to enforcement action. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Although we designed our Phase 1 clinical trial of IK-175 and Phase 1b clinical trial of IK-007 and intend to design the future clinical trials for our product candidates, these trials are conducted by CROs and we expect CROs will conduct all of our future clinical trials. As a result, many important aspects of our development programs, including their conduct and timing, are outside of our direct control. Our reliance on third parties to conduct future clinical trials also results in less direct control over the management of data developed through clinical trials than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

These factors may materially adversely affect the willingness or ability of third parties to conduct our clinical trials and may subject us to unexpected cost increases that are beyond our control. If the principal investigators or CROs do not perform clinical trials in a satisfactory manner, breach their obligations to us or fail to comply with regulatory requirements, the development, regulatory approval and commercialization of our product candidates may be delayed, we may not be able to obtain regulatory approval and commercialize our product candidates or our development program may be materially and irreversibly harmed. If we are unable to rely on clinical data collected by our principal investigators or CROs, we could be required to repeat, extend the duration of, or increase the size of any clinical trials we conduct and this could significantly delay commercialization and require significantly greater expenditures.

If any of our relationships with these third-party principal investigators or CROs terminate, we may not be able to enter into arrangements with alternative CROs. If principal investigators or CROs do not successfully carry out their contractual obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, any clinical trials such principal investigators or CROs are associated with may be extended, delayed or terminated, and we may not be able to obtain regulatory approval

for, or successfully commercialize, our product candidates. As a result, we believe that our financial results and the commercial prospects for our product candidates in the subject indication would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We have entered into collaborations and may enter into additional collaborations in the future, and we might not realize the anticipated benefits of such collaborations.

Research, development, commercialization and/or strategic collaborations, including the existing collaboration that we have with Celgene Corporation (now part of BMS), are subject to numerous risks, which include the following:

- collaborators may have significant control or discretion in determining the efforts and resources that they will apply to a collaboration, and might not commit sufficient efforts and resources or might misapply those efforts and resources;
- we may have limited influence or control over the approaches to research, development and/or commercialization of product candidates in the territories in which our collaboration partners lead research, development and/or commercialization;
- collaborators might not pursue research, development and/or commercialization of collaboration product candidates or might elect not to continue or renew research, development and/or commercialization programs based on nonclinical and/or clinical trial results, changes in their strategic focus, availability of funding or other factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators might delay, provide insufficient resources to, or modify or stop research or clinical development for collaboration product candidates or require a new formulation of a product candidate for clinical testing;
- collaborators with sales, marketing and distribution rights to one or more product candidates might not commit sufficient resources to sales, marketing and distribution or might otherwise fail to successfully commercialize those product candidates;
- collaborators might not properly maintain or defend our intellectual property rights or might use our intellectual property improperly or in a way that jeopardizes our intellectual property or exposes us to potential liability;
- collaboration activities might result in the collaborator having intellectual property covering our activities or product candidates, which could limit our rights or ability to research, develop and/or commercialize our product candidates;
- collaborators might not be in compliance with laws applicable to their activities under the collaboration, which could impact the collaboration and us;
- disputes might arise between a collaborator and us that could cause a delay or termination of the collaboration or result in costly litigation that diverts management attention and resources; and
- collaborations might be terminated, which could result in a need for additional capital to pursue further research, development and/or commercialization of our product candidates.

In addition, funding provided by a collaborator might not be sufficient to advance product candidates under the collaboration. For example, although BMS provided us with an $80.5 million upfront payment and a $14.5 million equity investment upon entering into that certain master collaboration agreement with Celgene Corporation (now BMS), we might need additional funding to advance product candidates prior to the completion of a Phase 1b clinical trial for each of IK-175 and IK-412, which are the clinical milestones when BMS must decide whether to exercise its exclusive license rights to those product candidates. On November 20, 2019, BMS acquired Celgene Corporation and BMS may take a different approach to our collaboration or determine not to continue the collaboration.

If a collaborator terminates a collaboration or a program under a collaboration, including by failing to exercise a license or other option under the collaboration, whether because we fail to meet a milestone or otherwise, any potential revenue from the collaboration would be significantly reduced or eliminated. In addition, we will likely need to either secure other funding to advance research, development and/or commercialization of the relevant product candidate or abandon that program, the development of the relevant product candidate could be significantly delayed, and our cash expenditures could increase significantly if we are to continue research, development and/or commercialization of the relevant product candidates.

Any one or more of these risks, if realized, could reduce or eliminate future revenue from product candidates under our collaborations, and could have a material adverse effect on our business, financial condition, results of operations and/or growth prospects.

We contract with third parties for the manufacture of our product candidates for preclinical development and clinical testing, and expect to continue to do so for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not currently own or operate, nor do we have any plans to establish in the future, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical development and clinical testing, as well as for the commercial manufacture of our products if any of our product candidates receive regulatory approval. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

The facilities used by our contract manufacturers to manufacture our product candidates must be inspected by the FDA pursuant to pre-approval inspections that will be conducted after we submit our marketing applications to the FDA. We do not control the manufacturing process of, and will be completely dependent on, our contract manufacturers for compliance with cGMPs in connection with the manufacture of our product candidates. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to pass regulatory inspections and/or maintain regulatory compliance for their manufacturing facilities. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority finds deficiencies with or does not approve these facilities for the manufacture of our product candidates or if it finds deficiencies or withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved.

If any contract manufacturing organization, or CMO, with whom we contract fails to perform its obligations, we may be forced to enter into an agreement with a different CMO, which we may not be able to do on reasonable terms, if at all. In such scenario, our clinical trials supply could be delayed significantly as we establish alternative supply sources. In some cases, the technical skills required to manufacture our products or product candidates may be unique or proprietary to the original CMO and we may have difficulty, or there may be contractual restrictions prohibiting us from, transferring such skills to a back-up or alternate supplier, or we may be unable to transfer such skills at all. In addition, if we are required to change CMOs for any reason, we will be required to verify that the new CMO maintains facilities and procedures that comply with quality standards and with all applicable regulations. We will also need to verify, such as through a manufacturing comparability study, that any new manufacturing process will produce our product candidate according to the specifications previously submitted to the FDA or another regulatory authority. The delays associated with the verification of a new CMO could negatively affect our ability to develop product candidates or commercialize our products in a timely manner or within budget. Furthermore, a CMO may possess technology related to the manufacture of our product candidate that such CMO owns independently. This would increase our reliance on such CMO or require us to obtain a license from such CMO in order to have another CMO manufacture our product candidates. In

addition, changes in manufacturers often involve changes in manufacturing procedures and processes, which could require that we conduct bridging studies between our prior clinical supply used in our clinical trials and that of any new manufacturer. We may be unsuccessful in demonstrating the comparability of clinical supplies which could require the conduct of additional clinical trials.

Further, our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, if approved, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business and supplies of our product candidates.

We may be unable to establish any additional agreements with third-party manufacturers or do so on acceptable terms. Reliance on third-party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Our product candidates and any products that we may develop may compete with other product candidates and approved products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or regulatory approval. If our current contract manufacturers cannot perform as agreed, we may be required to replace such manufacturers. We may incur added costs and delays in identifying and qualifying any such replacement.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive regulatory approval on a timely and competitive basis.

The third parties upon whom we rely for the supply of the active pharmaceutical ingredients used in our product candidates are our sole source of supply, and the loss of any of these suppliers could significantly harm our business.

The active pharmaceutical ingredients, or API, used in all of our product candidates are supplied to us from single-source suppliers. Our ability to successfully develop our product candidates, and to ultimately supply our commercial products in quantities sufficient to meet the market demand, depends in part on our ability to obtain the API for these products in accordance with regulatory requirements and in sufficient quantities for clinical testing and commercialization. Moreover, for IK-412, we depend on a single-source supplier of high grade polyethylene glycol, or PEG, a key component that is added to the API and contributes to the properties of IK-412. We do not currently have arrangements in place for a redundant or second-source supply of any such API in the event any of our current suppliers of such API cease their operations for any reason. We are also unable to predict how changing global economic conditions or potential global health concerns such as the COVID-19 pandemic will affect our third-party suppliers and manufacturers. Any negative impact of such matters on our third-party suppliers and manufacturers may also have an adverse impact on our results of operations or financial condition.

For all of our product candidates, we intend to identify and qualify additional manufacturers to provide such API prior to submission of an NDA to the FDA and/or an MAA to the EMA. We are not certain, however, that our single-source suppliers will be able to meet our demand for their products, either because of the nature of our agreements with those suppliers, our limited experience with those suppliers or our relative importance as a customer to those suppliers. It may be difficult for us to assess their ability to timely meet our demand in the future based on past performance. While our suppliers have generally met our demand for their products on a timely basis in the past, they may subordinate our needs in the future to their other customers.

Establishing additional or replacement suppliers for the API used in our product candidates, if required, may not be accomplished quickly. If we are able to find a replacement supplier, such replacement supplier would need to be qualified and may require additional regulatory inspection or approval, which could result in further delay. While we seek to maintain adequate inventory of the API used in our product candidates, any interruption or delay in the supply of components or materials, or our inability to obtain such API from alternate sources at acceptable prices in a timely manner could impede, delay, limit or prevent our development efforts, which could harm our business, results of operations, financial condition and prospects.

The manufacture of biologics is complex and our third-party manufacturers may encounter difficulties in production. If any of our third-party manufacturers encounter such difficulties, our ability to provide supply of product candidates for clinical trials or products for patients, if approved, could be delayed or prevented.

Manufacturing biologics, especially in large quantities, is often complex and may require the use of innovative technologies to handle living cells. Each lot of an approved biologic must undergo thorough testing for identity, strength, quality, purity and potency. Manufacturing biologics requires facilities specifically designed for and validated for this purpose, and sophisticated quality assurance and quality control procedures are necessary. Slight deviations anywhere in the manufacturing process, including filling, labeling, packaging, storage and shipping and quality control and testing, may result in lot failures, product recalls or spoilage. When changes are made to the manufacturing process, we may be required to provide preclinical and clinical data showing the comparable identity, strength, quality, purity or potency of the products before and after such changes. If microbial, viral or other contaminations are discovered at the facilities of our manufacturers, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical trials and adversely harm our business.

In addition, there are risks associated with large scale manufacturing for clinical trials or commercial scale including, among others, cost overruns, potential problems with process scale-up, process reproducibility, stability issues, compliance with good manufacturing practices, lot consistency and timely availability of raw materials. Even if we obtain regulatory approval for any of our current product candidates or any future product candidates, there is no assurance that our manufacturers will be able to manufacture the approved product to specifications acceptable to the FDA or other comparable foreign regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential commercial launch of the product or to meet potential future demand. If our manufacturers are unable to produce sufficient quantities for clinical trials or for commercialization, our development and commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

We may seek to establish additional collaborations, and, if we are not able to establish them on commercially reasonable terms, or at all, we may have to alter our development and commercialization plans.

Our product development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with additional pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator’s resources and

expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's own evaluation of a potential collaboration. Such factors a potential collaborator will use to evaluate a collaboration may include the design or results of clinical trials, the likelihood of approval by the FDA or comparable foreign regulatory authorities, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. The terms of any additional collaborations or other arrangements that we may establish may not be favorable to us.

We may also be restricted under collaboration agreements from entering into future agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate additional collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

In addition, any future collaborations that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations. Disagreements between parties to a collaboration arrangement regarding clinical development and commercialization matters can lead to delays in the development process or commercializing the applicable product candidate and, in some cases, termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision-making authority. Collaborations with pharmaceutical or biotechnology companies and other third parties often are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect us financially and could harm our business reputation.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain patent and other intellectual property protection for our technology and product candidates or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drugs may be impaired.

Our commercial success depends in part on our ability to obtain and maintain proprietary or intellectual property protection in the U.S. and other countries for our current or future product candidates, including our current lead product candidates, IK-930, IK-175, IK-412, IK-007, and our other future product candidates, such as against our Ras signaling target, ERK5, as well as for their respective compositions, formulations, methods used to manufacture them, and methods of treatment, in addition to successfully defending these patents against third-party challenges. We seek to protect our proprietary and intellectual property position by, among other methods, filing patent applications in the U.S. and abroad related to our proprietary technology, inventions, and

improvements that are important to the development and implementation of our business. Our ability to stop unauthorized third parties from making, using, selling, offering to sell, or importing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. We also rely on trade secrets, know-how and continuing technological innovation to develop and maintain our proprietary and intellectual property position.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. The degree of patent protection we require to successfully commercialize our current or future product candidates may be unavailable or severely limited in some cases and may not adequately protect our rights or permit us to gain or keep any competitive advantage. We cannot provide any assurances that any of our patents have, or that any of our pending patent applications that mature into issued patents will include, claims with a scope sufficient to protect IK-930, IK-175, IK-412, IK-007 or our other current or future product candidates, including against our Ras signaling pathway, target ERK5. In addition, if the breadth or strength of protection provided by our patent applications or any patents we may own or in-license is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the U.S. For example, in jurisdictions outside the U.S., a license may not be enforceable unless all the owners of the intellectual property agree or consent to the license. Accordingly, any actual or purported co-owner of our patent rights could seek monetary or equitable relief requiring us to pay it compensation for, or refrain from, exploiting these patents due to such co-ownership. Furthermore, patents have a limited lifespan. In the U.S., and most other jurisdictions in which we have undertaken patent filings, the natural expiration of a patent is generally twenty years after it is filed, assuming all maintenance fees are paid. Various extensions may be available, on a jurisdiction-by-jurisdiction basis; however, the life of a patent, and thus the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, patents we may own or in-license may not provide us with adequate and continuing patent protection sufficient to exclude others from commercializing drugs similar or identical to our current or future product candidates, including generic versions of such drugs.

Other parties have developed technologies that may be related or competitive to our own, and such parties may have filed or may file patent applications, or may have received or may receive patents, claiming inventions that may overlap or conflict with those claimed in our own patent applications or issued patents, with respect to either the same compounds, methods, formulations or other subject matter, in either case that we may rely upon to dominate our patent position in the market. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the U.S. and other jurisdictions are typically not published until at least 18 months after the earliest priority date of patent filing, or, in some cases, not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in patents we may own or in-license patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights cannot be predicted with any certainty.

In addition, the patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Further, with respect to certain pending patent applications covering our current or future product candidates, prosecution has yet to commence. Patent prosecution is a lengthy process, during which the scope of the claims initially submitted for examination by the relevant patent office(s) may be significantly narrowed by the time they issue, if they ever do. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from or to third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

Even if we acquire patent protection that we expect should enable us to establish and/or maintain a competitive advantage, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the U.S. and abroad. We may become involved in post-grant proceedings such as opposition, derivation, reexamination, *inter partes* review, post-grant review, or interference proceedings challenging our patent rights or the patent rights of others from whom we may in the future obtain licenses to such rights, in the U.S. Patent and Trademark Office (USPTO), the European Patent Office (EPO), or in other countries. In addition, we may be subject to a third-party submission to the USPTO, the EPO, or elsewhere, that may reduce the scope or preclude the granting of claims from our pending patent applications. Competitors may allege that they invented the inventions claimed in our issued patents or patent applications prior to us, or may file patent applications before we do. Competitors may also claim that we are infringing their patents and that we therefore cannot practice our technology as claimed under our patents or patent applications. Competitors may also contest our patents by claiming to an administrative patent authority or judge that the invention was not patent-eligible, was not original, was not novel, was obvious, and/or lacked inventive step, and/or that the patent application filing failed to meet relevant requirements relating to description, basis, enablement, and/or support; in litigation, a competitor could claim that our patents, if issued, are not valid or are unenforceable for a number of reasons. If a court or administrative patent authority agrees, we would lose our protection of those challenged patents.

In addition, we may in the future be subject to claims by our former employees or consultants asserting an ownership right in our patents or patent applications, as a result of the work they performed on our behalf. Although we generally require all of our employees, consultants and advisors and any other third parties who have access to our proprietary know-how, information or technology to assign or grant similar rights to their inventions to us, we cannot be certain that we have executed such agreements with all parties who may have contributed to our intellectual property, nor can we be certain that our agreements with such parties will be upheld in the face of a potential challenge, or that they will not be breached, for which we may not have an adequate remedy.

An adverse determination in any such submission or proceeding may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and drugs, without payment to us, or could limit the duration of the patent protection covering our technology and current or future product candidates. Such challenges may also result in our inability to manufacture or commercialize our current or future product candidates without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Even if they are unchallenged, our issued patents and our pending patent applications, if issued, may not provide us with any meaningful protection or prevent competitors from designing around our patent claims to circumvent patents we may own or in-license by developing similar or alternative technologies or drugs in a non-infringing manner. For example, a third-party may develop a competitive drug that provides benefits similar to one or more of our current or future product candidates but that has a different composition that falls outside the scope of our patent protection. If the patent protection provided by the patents and patent applications we hold or pursue with respect to our current or future product candidates is not sufficiently broad to impede such competition, our ability to successfully commercialize our current or future product candidates could be negatively affected, which would harm our business.

Furthermore, even if we are able to issue patents with claims of valuable scope in one or more jurisdictions, we may not be able to secure such claims in all relevant jurisdictions, or in a sufficient number to meaningfully reduce competition. Our competitors may be able to develop and commercialize their products, including products identical to ours, in any jurisdiction in which we are unable to obtain, maintain, or enforce such patent claims.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, deadlines, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated if we fail to comply with these requirements. We may miss a filing deadline for patent protection on these inventions.

The USPTO and foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process and after issuance of any patent. In addition, periodic maintenance fees, renewal fees, annuity fees and/or various other government fees are required to be paid periodically. While an inadvertent lapse can, in some cases, be cured by payment of a late fee, or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of a patent include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market with similar or identical products or platforms, which could have a material adverse effect on our business prospects and financial condition.

If our trademarks and trade names for our products or company name are not adequately protected in one or more countries where we intend to market our products, we may delay the launch of product brand names, use different trademarks or tradenames in different countries, or face other potentially adverse consequences to building our product brand recognition.

Our trademarks or trade names may be challenged, infringed, diluted, circumvented or declared generic or determined to be infringing on other marks. We intend to rely on both registration and common law protection for our trademarks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. During the trademark registration process, we may receive Office Actions from the USPTO or from comparable agencies in foreign jurisdictions objecting to the registration of our trademark. Although we would be given an opportunity to respond to those objections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and/or to seek the cancellation of registered trademarks. Opposition or cancellation proceedings may be filed against our trademark applications or registrations, and our trademark applications or registrations may not survive such proceedings. If we are unable to obtain a registered trademark or establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected.

If we are unable to adequately protect and enforce our trade secrets, our business and competitive position would be harmed.

In addition to the protection afforded by patents we may own or in-license, we seek to rely on trade secret protection, confidentiality agreements, and license agreements to protect proprietary know-how that may not be patentable, processes for which patents are difficult to enforce and any other elements of our product discovery and development processes that involve proprietary know-how, information, or technology that may not be covered by patents. Although we require all of our employees, consultants, advisors, and any third parties who have access to our proprietary know-how, information, or technology to enter into confidentiality agreements, trade secrets can be difficult to protect and we have limited control over the protection of trade secrets used by our collaborators and suppliers. We cannot be certain that we have or will obtain these agreements in all circumstances and we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary information.

Moreover, any of these parties might breach the agreements and intentionally or inadvertently disclose our trade secret information and we may not be able to obtain adequate remedies for such breaches. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent

information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights and trade secrets to the same extent or in the same manner as the laws of the U.S. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the U.S. and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, financial condition, results of operations and future prospects.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. If we choose to go to court to stop a third-party from using any of our trade secrets, we may incur substantial costs. These lawsuits may consume our time and other resources even if we are successful. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third-party, we would have no right to prevent them from using that technology or information to compete with us.

Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual or entity during the course of the party's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary technology by third parties. In the case of employees, the agreements provide that all inventions conceived by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. Although we require all of our employees to assign their inventions to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, results of operations, and prospects.

We may initiate, become a defendant in, or otherwise become party to lawsuits to protect or enforce our intellectual property rights, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe any patents we may own or in-license. In addition, any patents we may own or in-license also may become involved in inventorship, priority, validity or unenforceability disputes. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, in an infringement proceeding, a court may decide that one or more of any patents we may own or in-license is not valid or is unenforceable or that the other party's use of our technology that may be patented falls under the safe harbor to patent infringement under 35 U.S.C. § 271(e)(1). There is also the risk that, even if the validity of these patents is upheld, the court may refuse to stop the other party from using the technology at issue on the grounds that any patents we may own or in-license do not cover the technology in question or that such third-party's activities do not infringe our patent applications or any patents we may own or in-license. An adverse result in any litigation or defense proceedings could put one or more of any patents we may own or in-license at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our patent applications at risk of not issuing. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or

any future sales, marketing, patient support or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Post-grant proceedings provoked by third-parties or brought by the USPTO may be necessary to determine the validity or priority of inventions with respect to our patent applications or any patents we may own or in-license. These proceedings are expensive and an unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. In addition to potential USPTO post-grant proceedings, we may become a party to patent opposition proceedings in the EPO, or similar proceedings in other foreign patent offices or courts where our patents may be challenged. The costs of these proceedings could be substantial, and may result in a loss of scope of some claims or a loss of the entire patent. An unfavorable result in a post-grant challenge proceeding may result in the loss of our right to exclude others from practicing one or more of our inventions in the relevant country or jurisdiction, which could have a material adverse effect on our business. Litigation or post-grant proceedings within patent offices may result in a decision adverse to our interests and, even if we are successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the U.S.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

We may not be able to detect infringement against any patents we may own or in-license. Even if we detect infringement by a third-party of any patents we may own or in-license, we may choose not to pursue litigation against or settlement with the third-party. If we later sue such third-party for patent infringement, the third-party may have certain legal defenses available to it, which otherwise would not be available except for the delay between when the infringement was first detected and when the suit was brought. Such legal defenses may make it impossible for us to enforce any patents we may own or in-license against such third-party.

Intellectual property litigation and administrative patent office patent validity challenges in one or more countries could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing, patient support or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. As noted above, some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace, including compromising our ability to raise the funds necessary to continue our clinical trials, continue our research

programs, license necessary technology from third parties, or enter into development collaborations that would help us commercialize our current or future product candidates, if approved. Any of the foregoing events would harm our business, financial condition, results of operations and prospects.

We may be subject to damages or settlement costs resulting from claims that we or our employees have violated the intellectual property rights of third parties, or are in breach of our agreements. We may be accused of, allege or otherwise become party to lawsuits or disputes alleging wrongful disclosure of third-party confidential information by us or by another party, including current or former employees, contractors or consultants. In addition to diverting attention and resources to such disputes, such disputes could adversely impact our business reputation and/or protection of our proprietary technology.

The intellectual property landscape relevant to our product candidates and programs is crowded, and third parties may initiate legal proceedings alleging that we are infringing, misappropriating or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business. Our commercial success depends upon our ability to develop, manufacture, market and sell our current and future product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including derivation, interference, reexamination, *inter partes* review and post grant review proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. We or any of our current or future licensors or strategic partners may be party to, exposed to, or threatened with, future adversarial proceedings or litigation by third parties having patent or other intellectual property rights alleging that our current or future product candidates and/or proprietary technologies infringe, misappropriate or otherwise violate their intellectual property rights. We cannot assure you that our current or future product candidates and other technologies that we have developed, are developing or may develop in the future do not or will not infringe, misappropriate or otherwise violate existing or future patents or other intellectual property rights owned by third parties. For example, many of our employees were previously employed at other biotechnology or pharmaceutical companies. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's former employer. We may also be subject to claims that patents and applications we have filed to protect inventions of our employees, consultants and advisors, even those related to one or more of our current or future product candidates, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims.

While certain activities related to development and clinical testing of our current or future product candidates may be subject to safe harbor of patent infringement under 35 U.S.C. §271(e)(1), upon receiving FDA approval for such candidates we or any of our future licensors or strategic partners may immediately become party to, exposed to, or threatened with, future adversarial proceedings or litigation by third parties having patent or other intellectual property rights alleging that such product candidates infringe, misappropriate or otherwise violate their intellectual property rights. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing our current or future product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our current or future product candidates may give rise to claims of infringement of the patent rights of others. Moreover, it is not always clear to industry participants, including us, which patents cover various types of drugs, products or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our fields, there may be a risk that third parties may allege they have patent rights encompassing our current or future product candidates, technologies or methods.

If a third party claims that we infringe, misappropriate or otherwise violate its intellectual property rights, we may face a number of issues, including, but not limited to:

- infringement, misappropriation and other intellectual property claims which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business and may impact our reputation;
- substantial damages for infringement, misappropriation or other violations, which we may have to pay if a court decides that the product candidate or technology at issue infringes, misappropriates or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees;
- a court prohibiting us from developing, manufacturing, marketing or selling our current product candidates, including IK-930, IK-007, IK-175, and IK-412, or future product candidates, such as against our Ras signaling target, ERK5, or from using our proprietary technologies, unless the third-party licenses its product rights to us, which it is not required to do, on commercially reasonable terms or at all;
- if a license is available from a third party, we may have to pay substantial royalties, upfront fees and other amounts, and/or grant cross-licenses to intellectual property rights for our products, or the license to us may be non-exclusive, which would permit third parties to use the same intellectual property to compete with us;
- redesigning our current or future product candidates or processes so they do not infringe, misappropriate or violate third-party intellectual property rights, which may not be possible or may require substantial monetary expenditures and time; and
- there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and, if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, results of operations, financial condition and prospects. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition, results of operations or prospects.

We may choose to challenge the patentability of claims in a third-party's U.S. patent by requesting that the USPTO review the patent claims in an ex-parte re-exam, *inter partes* review or post-grant review proceedings. These proceedings are expensive and may consume our time or other resources. We may choose to challenge a third-party's patent in patent opposition proceedings in the EPO, or other foreign patent office. The costs of these opposition proceedings could be substantial, and may consume our time or other resources. If we fail to obtain a favorable result at the USPTO, EPO or other patent office then we may be exposed to litigation by a third-party alleging that the patent may be infringed by our current or future product candidates or proprietary technologies.

Third parties may assert that we are employing their proprietary technology without authorization. Patents issued in the U.S. by law enjoy a presumption of validity that can be rebutted in U.S. courts only with evidence that is "clear and convincing," a heightened standard of proof. There may be issued third-party patents of which we are currently unaware with claims to compositions, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our current or future product candidates. Patent applications can take many years to issue. In addition, because some patent applications in the U.S. may be maintained in secrecy until the patents are issued, patent applications in the U.S. and many foreign jurisdictions are typically not published until 18 months after their earliest priority filing date, and publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications covering our current or future product candidates or technology. If any such patent applications issue as patents, and if such patents have

priority over our patent applications or patents we may own or in-license, we may be required to obtain rights to such patents owned by third parties which may not be available on commercially reasonable terms or at all, or may only be available on a non-exclusive basis. There may be currently pending third-party patent applications which may later result in issued patents that our current or future product candidates may infringe. It is also possible that patents owned by third parties of which we are aware, but which we do not believe are relevant to our current or future product candidates or other technologies, could be found to be infringed by our current or future product candidates or other technologies. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, we may fail to identify relevant patents or incorrectly conclude that a patent is invalid, not enforceable, exhausted, or not infringed by our activities. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of our current or future product candidates, molecules used in or formed during the manufacturing process, or any final product itself, the holders of any such patents may be able to block our ability to commercialize the product candidate unless we obtained a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy or patient selection methods, the holders of any such patent may be able to block our ability to develop and commercialize the product candidate unless we obtained a license or until such patent expires or is finally determined to be held invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our current or future product candidates may be impaired or delayed, which could in turn significantly harm our business. Even if we obtain a license, it may be nonexclusive, thereby giving our competitors access to the same technologies licensed to us.

Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our current or future product candidates. Defense of these claims, regardless of their merit, could involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement, misappropriation or other violation against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need or may choose to obtain licenses from third parties to advance our research or allow commercialization of our current or future product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our current or future product candidates, which could harm our business significantly.

We may be unable to obtain patent or other intellectual property protection for our current or future product candidates or our future products, if any, in all jurisdictions throughout the world, and we may not be able to adequately enforce our intellectual property rights even in the jurisdictions where we seek protection.

We may not be able to pursue patent coverage of our current or future product candidates in all countries. Filing, prosecuting and defending patents on current or future product candidates in all countries throughout the world would be prohibitively expensive, and intellectual property rights in some countries outside the U.S. can be less extensive than those in the U.S. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the U.S., or from selling or importing products made using our inventions in and into the U.S. or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but where enforcement is not as strong as that in the U.S. These products may compete with our current or future product

candidates and in jurisdictions where we do not have any issued patents our patent applications or other intellectual property rights may not be effective or sufficient to prevent them from competing. Much of our patent portfolio is at the very early stage. We will need to decide whether and in which jurisdictions to pursue protection for the various inventions in our portfolio prior to applicable deadlines.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to pharmaceutical products, which could make it difficult for us to stop the infringement of any patents we may own or in-license or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce any rights we may have in our patent applications or any patents we may own or in-license in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put any patents we may own or in-license at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we are forced to grant a license to third parties with respect to any patents we may own or license that are relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations, and prospects may be adversely affected.

We may not obtain or grant licenses or sublicenses to intellectual property rights in all markets on equally or sufficiently favorable terms with third parties.

It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties. The licensing of third-party intellectual property rights is a competitive area, and more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. More established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. If we are unable to license such technology, or if we are forced to license such technology on unfavorable terms, our business could be materially harmed. If we are unable to obtain a necessary license, we may be unable to develop or commercialize the affected current or future product candidates, which could materially harm our business, and the third parties owning such intellectual property rights could seek either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties or other forms of compensation. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. Any of the foregoing could harm our competitive position, business, financial condition, results of operations and prospects.

If we fail to comply with our obligations in any agreements under which we may license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business.

We may from time to time be party to license and collaboration agreements with third parties to advance our research or allow commercialization of current or future product candidates. Such agreements may impose

numerous obligations, such as development, diligence, payment, commercialization, funding, milestone, royalty, sublicensing, insurance, patent prosecution, enforcement and other obligations on us and may require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. In spite of our best efforts, our licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements, thereby removing or limiting our ability to develop and commercialize products and technologies covered by these license agreements.

Any termination of these licenses, or if the underlying patents fail to provide the intended exclusivity, could result in the loss of significant rights and could harm our ability to commercialize our current or future product candidates, and competitors or other third parties would have the freedom to seek regulatory approval of, and to market, products identical to ours and we may be required to cease our development and commercialization of certain of our current or future product candidates. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Disputes may also arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe, misappropriate or otherwise violate intellectual property rights of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our current or future product candidates, and what activities satisfy those diligence obligations;
- the priority of invention of any patented technology; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our future licensors and us and our partners.

In addition, the agreements under which we may license intellectual property or technology from third parties are likely to be complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we may license prevent or impair our ability to maintain future licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected current or future product candidates, which could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Any granted patents we may own or in-license covering our current or future product candidates or other valuable technology could be narrowed or found invalid or unenforceable if challenged in court or before administrative bodies in the U.S. or abroad, including the USPTO and the EPO. A patent asserted in a judicial court could be found invalid or unenforceable during the enforcement proceeding. Administrative or judicial proceedings challenging the validity of our patents or individual patent claims could take months or years to resolve.

If we or our licensors or strategic partners initiate legal proceedings against a third-party to enforce a patent covering one of our current or future product candidates, the defendant could counterclaim that the patent

covering our product candidate, as applicable, is invalid and/or unenforceable. In patent litigation in the U.S., defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third-party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of patentable subject matter, lack of written description, lack of novelty, obviousness, or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, in the process of obtaining the patent during patent prosecution. Third parties may also raise similar claims before administrative bodies in the U.S. or abroad, even outside the context of litigation. Such mechanisms include re-examination, *inter partes* review, post grant review and equivalent proceedings in foreign jurisdictions (such as opposition proceedings). Such proceedings could result in revocation or amendment to our patent applications or any patents we may own or in-license in such a way that they no longer cover our current or future product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, any rights we may have from our patent applications or any patents we may own or in-license, allow third parties to commercialize our current or future product candidates or other technologies and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our or our future licensors' priority of invention or other features of patentability with respect to our patent applications and any patents we may own or in-license. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our current or future product candidates and other technologies. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we or our future licensing partners and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, or if we are otherwise unable to adequately protect our rights, we would lose at least part, and perhaps all, of the patent protection on our current or future product candidates. Such a loss of patent protection could have a material adverse impact on our business and our ability to commercialize or license our technology and current or future product candidates.

Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us. If we are unsuccessful in any such proceeding or other priority or inventorship dispute, we may be required to obtain and maintain licenses from third parties, including parties involved in any such interference proceedings or other priority or inventorship disputes. Such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture, and commercialization of one or more of the current or future product candidates we may develop. The loss of exclusivity or the narrowing of our patent application claims could limit our ability to stop others from using or commercializing similar or identical technology and products. Any of the foregoing could have a material adverse effect on our business, results of operations, financial condition and prospects.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our current or future product candidates.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Recent patent reform legislation in the U.S. and other countries, including the Leahy-Smith America Invents Act, or Leahy-Smith Act, signed into law on September 16, 2011, could increase those uncertainties and costs. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art and provide more efficient and cost-effective

avenues for competitors to challenge the validity of patents. In addition, the Leahy-Smith Act has transformed the U.S. patent system into a "first inventor to file" system. The first-inventor-to-file provisions, however, only became effective on March 16, 2013. Accordingly, it is not yet clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could make it more difficult to obtain patent protection for our inventions and increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could harm our business, results of operations and financial condition.

The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. Additionally, there have been recent proposals for additional changes to the patent laws of the U.S. and other countries that, if adopted, could impact our ability to obtain patent protection for our proprietary technology or our ability to enforce our proprietary technology. Depending on future actions by the U.S. Congress, the U.S. courts, the USPTO and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might subject us to infringement claims or adversely affect our ability to develop and market our current or future product candidates.

We cannot guarantee that any of our or our licensors' patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending patent application in the U.S. and abroad that is relevant to or necessary for the commercialization of our current or future product candidates in any jurisdiction. For example, U.S. patent applications filed before November 29, 2000 and certain U.S. patent applications filed after that date that will not be filed outside the U.S. remain confidential until patents issue. As mentioned above, patent applications in the U.S. and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our current or future product candidates could have been filed by third parties without our knowledge. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our current or future product candidates or the use of our current or future product candidates. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our current or future product candidates. We may incorrectly determine that our current or future product candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the U.S. or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our current or future product candidates. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our current or future product candidates.

If we fail to identify and correctly interpret relevant patents, we may be subject to infringement claims. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we fail in any such dispute, in addition to being forced to pay damages, which may be significant, we may be temporarily or permanently prohibited from commercializing any of our current or future product candidates that are held to be infringing. We might, if possible, also be forced to redesign current or future product candidates so that we no longer infringe the third-party intellectual property rights. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business and could adversely affect our business, financial condition, results of operations and prospects.

Intellectual property rights do not guarantee commercial success of current or future product candidates or other business activities. Numerous factors may limit any potential competitive advantage provided by our intellectual property rights.

The degree of future protection afforded by our intellectual property rights, whether owned or in-licensed, is uncertain because intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors, or permit us to maintain our competitive advantage. Moreover, if a third-party has intellectual property rights that cover the practice of our technology, we may not be able to fully exercise or extract value from our intellectual property rights. The following examples are illustrative:

- patent applications that we own or may in-license may not lead to issued patents;
- patents, should they issue, that we may own or in-license, may not provide us with any competitive advantages, may be narrowed in scope, or may be challenged and held invalid or unenforceable;
- others may be able to develop and/or practice technology, including compounds that are similar to the chemical compositions of our current or future product candidates, that is similar to our technology or aspects of our technology but that is not covered by the claims of any patents we may own or in-license, should any patents issue;
- third parties may compete with us in jurisdictions where we do not pursue and obtain patent protection;
- we, or our future licensors or collaborators, might not have been the first to make the inventions covered by a patent application that we own or may in-license;
- we, or our future licensors or collaborators, might not have been the first to file patent applications covering a particular invention;
- others may independently develop similar or alternative technologies without infringing, misappropriating or otherwise violating our intellectual property rights;
- our competitors might conduct research and development activities in the U.S. and other countries that provide a safe harbor from patent infringement claims for certain research and development activities, as well as in countries where we do not have patent rights, and may then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not be able to obtain and/or maintain necessary licenses on reasonable terms or at all;
- third parties may assert an ownership interest in our intellectual property and, if successful, such disputes may preclude us from exercising exclusive rights, or any rights at all, over that intellectual property;
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third-party may subsequently file a patent covering such trade secrets or know-how;
- we may not be able to maintain the confidentiality of our trade secrets or other proprietary information;
- we may not develop or in-license additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, financial condition, results of operations and prospects.

Risks Related to Government Regulation

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions.

We may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to

marketing in those jurisdictions. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or receive applicable regulatory approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants regulatory approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional nonclinical studies or clinical trials as clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In short, the foreign regulatory approval process involves all of the risks associated with FDA approval. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we may intend to charge for our products will also be subject to approval.

We may seek priority review designation for one or more of our other product candidates, but we might not receive such designation, and even if we do, such designation may not lead to a faster regulatory review or approval process.

If the FDA determines that a product candidate offers a treatment for a serious condition and, if approved, the product would provide a significant improvement in safety or effectiveness, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months. We may request priority review for our product candidates. The FDA has broad discretion with respect to whether or not to grant priority review status to a product candidate, so even if we believe a particular product candidate is eligible for such designation or status, the FDA may decide not to grant it. Moreover, a priority review designation does not necessarily result in an expedited regulatory review or approval process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Receiving priority review from the FDA does not guarantee approval within the six-month review cycle or at all.

We may seek orphan drug designation for certain of our product candidates, and we may be unsuccessful or may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.

As part of our business strategy, we may seek orphan drug designation for certain of our product candidates, and we may be unsuccessful. Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug or biologic as an orphan drug if it is a product intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States, or a patient population of 200,000 or more in the United States where there is no reasonable expectation that the cost of developing the product will be recovered from sales in the United States. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers.

Similarly, in Europe, the European Commission, upon the recommendation of the EMA's Committee for Orphan Medicinal Products, grants orphan drug designation to promote the development of drugs that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in Europe and for which no satisfactory method of diagnosis, prevention, or treatment

has been authorized (or the product would be a significant benefit to those affected). Additionally, designation is granted for drugs intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in Europe would be sufficient to justify the necessary investment in developing the drug. In Europe, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers.

Generally, if a product with an orphan drug designation subsequently receives the first regulatory approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA or the EMA from approving another marketing application for the same product and indication for that time period, except in limited circumstances. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a product no longer meets the criteria for orphan drug designation or if the product is sufficiently profitable so that market exclusivity is no longer justified.

Even if we obtain orphan drug exclusivity for one of our product candidates, that exclusivity may not effectively protect our product candidate from competition because different products can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve the same product for the same condition if the FDA concludes that the later product is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. In addition, a designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Moreover, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of patients with the rare disease or condition or if another product with the same active moiety is determined to be safer, more effective, or represents a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a product nor gives the product any advantage in the regulatory review or approval process. While we may seek orphan drug designation for our product candidates, we may never receive such designations. Even if we do receive such designations, there is no guarantee that we will enjoy the benefits of those designations.

A breakthrough therapy designation and fast track designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development, regulatory review or approval process, and each designation does not increase the likelihood that any of our product candidates will receive regulatory approval in the United States.

We may seek a breakthrough therapy designation for some of our product candidates. A breakthrough therapy is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug or biologic may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For product candidates that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Products designated as breakthrough therapies by the FDA may also be eligible for priority review and accelerated approval. Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to therapies considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

We may seek fast track designation for some of our product candidates. If a drug or biologic is intended for the treatment of a serious or life-threatening condition and the drug or biologic demonstrates the potential to address unmet medical needs for this condition, the sponsor may apply for fast track designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast track designation alone does not guarantee qualification for the FDA's priority review procedures.

Accelerated approval by the FDA, even if granted for our current or any other future product candidates, may not lead to a faster development or regulatory review or approval process and it does not increase the likelihood that our product candidates will receive regulatory ***approval.***

We may seek accelerated approval of our current or future product candidates using the FDA's accelerated approval pathway. A product may be eligible for accelerated approval if it treats a serious or life-threatening condition and generally provides a meaningful advantage over available therapies. In addition, it must demonstrate an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, that is reasonably likely to predict an effect on IMM or other clinical benefit. As a condition of approval, the FDA requires that a sponsor of a drug or biologic receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. These confirmatory trials must be completed with due diligence. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Even if we do receive accelerated approval, we may not experience a faster development or regulatory review or approval process, and receiving accelerated approval does not provide assurance of ultimate FDA approval.

If approved, our investigational products regulated as biologics may face competition from biosimilars approved through an abbreviated regulatory pathway.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biologic products that are biosimilar to or interchangeable with an FDA-licensed reference biologic product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity, and potency of the other company's product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty.

We believe that any of our product candidates approved as a biologic product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our investigational medicines to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. Moreover, the extent to which a biosimilar, once licensed, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biologic products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

If competitors are able to obtain regulatory approval for biosimilars referencing our products, our products may become subject to competition from such biosimilars, with the attendant competitive pressure and consequences.

The FDA, the EMA and other regulatory authorities may implement additional regulations or restrictions on the development and commercialization of our product candidates, and such changes can be difficult to predict.

The FDA, the EMA and regulatory authorities in other countries have each expressed interest in further regulating biotechnology products. Agencies at both the federal and state level in the United States, as well as the U.S. Congressional committees and other governments or governing agencies, have also expressed interest in further regulating the biotechnology industry. Such action may delay or prevent commercialization of some or all of our product candidates. Adverse developments in clinical trials of products conducted by others may cause the FDA or other oversight bodies to change the requirements for approval of any of our product candidates. These regulatory review agencies and committees and the new requirements or guidelines they promulgate may lengthen the regulatory review process, require us to perform additional studies or trials, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our product candidates or lead to significant post-approval limitations or restrictions. As we advance our product candidates, we will be required to consult with these regulatory agencies and comply with applicable requirements and guidelines. If we fail to do so, we may be required to delay or discontinue development of such product candidates. These additional processes may result in a review and approval process that is longer than we otherwise would have expected. Delays as a result of an increased or lengthier regulatory approval process or further restrictions on the development of our product candidates can be costly and could negatively impact our ability to complete clinical trials and commercialize our current and future product candidates in a timely manner, if at all.

Inadequate funding for the FDA, the SEC and other government agencies, including from government shut downs, or other disruptions to these agencies' operations, could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory and policy changes. Average review times at the agency have fluctuated in recent years as a result. Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Separately, in response to the COVID-19 pandemic, on March 10, 2020, the FDA announced its intention to postpone most inspections of foreign manufacturing facilities and products while local, national and international conditions warrant. On March 18, 2020, the FDA announced its intention to temporarily postpone routine

surveillance inspections of domestic manufacturing facilities and provided guidance regarding the conduct of clinical trials which the FDA continues to update. As of June 23, 2020, the FDA noted it was continuing to ensure timely reviews of applications for medical products during the COVID-19 pandemic in line with its user fee performance goals and conducting mission critical domestic and foreign inspections to ensure compliance of manufacturing facilities with FDA quality standards. On July 16, 2020, the FDA noted that it was continuing to expedite oncology product development with its staff teleworking full-time. However, the FDA may not be able to continue its current pace and review timelines could be extended, including where a pre-approval inspection or an inspection of clinical sites is required and due to the COVID-19 pandemic and travel restrictions, the FDA is unable to complete such required inspections during the review period. As of July 2020, utilizing a rating system to assist in determining when and where it is safest to conduct such inspections based on data about the virus' trajectory in a given state and locality and the rules and guidelines that are put in place by state and local governments, FDA is either continuing to, on a case-by-case basis, conduct only mission critical inspections, or, where possible to do so safely, resuming prioritized domestic inspections, which generally include pre-approval inspections. Foreign pre-approval inspections that are not deemed mission-critical remain postponed, while those deemed mission-critical will be considered for inspection on a case-by-case basis. FDA will use similar data to inform resumption of prioritized operations abroad as it becomes feasible and advisable to do so. The FDA may not be able to maintain this pace and delays or setbacks are possible in the future. Should FDA determine that an inspection is necessary for approval and an inspection cannot be completed during the review cycle due to restrictions on travel, FDA has stated that it generally intends to issue a complete response letter. Further, if there is inadequate information to make a determination on the acceptability of a facility, FDA may defer action on the application until an inspection can be completed. In 2020, several companies announced receipt of complete response letters due to the FDA's inability to complete required inspections for their applications. Additionally, regulatory authorities outside the U.S. may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic and may experience delays in their regulatory activities. If a prolonged government shutdown or other disruption occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Future shutdowns or other disruptions could also affect other government agencies such as the SEC, which may also impact our business by delaying review of our public filings, to the extent such review is necessary, and our ability to access the public markets.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

The U.S. and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that could prevent or delay regulatory approval of our current or future product candidates or any future product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell a product for which we obtain regulatory approval. Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements, (ii) additions or modifications to product labeling, (iii) the recall or discontinuation of our products or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business. In the U.S., there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, or the ACA, was passed, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the U.S. pharmaceutical industry. The ACA, among other things, subjects biological products to potential competition by lower-cost biosimilars, addresses a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increases the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extends the rebate program to individuals enrolled in Medicaid managed care organizations, establishes annual fees and taxes on manufacturers of certain branded prescription drugs, and creates a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% (increased to 70% pursuant to the Bipartisan Budget Act of 2018, effective as of 2019) point-of-sale discounts off negotiated prices of applicable brand drugs to eligible

beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D. Since then, the ACA risk adjustment program payment parameters have been updated annually.

Members of the United States Congress and the current administration have expressed intent to pass legislation or adopt executive orders to fundamentally change or repeal parts of the ACA. While Congress has not passed comprehensive repeal legislation to date, the Tax Cuts and Jobs Act of 2017, or TCJA, essentially repealed, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." In addition, various portions of the ACA are currently undergoing legal and constitutional challenges in the United States Supreme Court. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results. We will continue to evaluate the effect that the ACA and its possible repeal and replacement has on our business.

Further, on January 20, 2017, an Executive Order was signed directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal burden on states or a cost, fee, tax, penalty or regulatory burden on individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. On October 13, 2017, an Executive Order was signed terminating the cost-sharing subsidies that reimburse insurers under the ACA. The current administration has concluded that cost-sharing reduction, or CSR, payments to insurance companies required under the ACA have not received necessary appropriations from Congress and announced that it will discontinue these payments immediately until those appropriations are made. The loss of the CSR payments is expected to increase premiums on certain policies issued by qualified health plans under the ACA. Several state Attorneys General filed suit to stop the administration from terminating the subsidies, but their request for a restraining order was denied by a federal judge in California on October 25, 2017. The loss of the cost share reduction payments is expected to increase premiums on certain policies issued by qualified health plans under the ACA. Further, on June 14, 2018, the United States Court of Appeals for the Federal Circuit ruled that the federal government was not required to pay to third-party payors more than $12 billion in ACA risk corridor payments that they argued were owed to them. This decision was appealed to the United States Supreme Court, which on April 27, 2020, reversed the United States Court of Appeals for the Federal Circuit's decision and remanded the case to the U.S. Court of Federal Claims, concluding the government has an obligation to pay these risk corridor payments under the relevant formula. The U.S. federal government has since started sending third-party payors owed payments. It is not clear what effect this result will have on our business, but we will continue to monitor any developments.

Moreover, on January 22, 2018, a continuing resolution on appropriations for fiscal year 2018 was approved that delayed the implementation of certain ACA-mandated fees, including the so called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices; however on December 20, 2019, the Further Consolidated Appropriations Act (H.R. 1865) was signed into law, which repeals the Cadillac tax, the health insurance provider tax, and the medical device excise tax. It is impossible to determine whether similar taxes could be instated in the future. The Bipartisan Budget Act of 2018, also amended the ACA, effective January 1, 2019, by increasing the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and closing the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." CMS published a final rule permitting further collections and payments to and from certain ACA qualified health plans and health insurance issuers under the ACA risk adjustment program in response to the outcome of federal district court litigation regarding the method CMS uses to determine this risk adjustment. In addition, CMS has published a final rule that would give states greater flexibility, starting in 2020, in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces.

Other legislative changes have been proposed and adopted in the U.S. since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by

Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers up to 2% per fiscal year, and, due to subsequent legislative amendments, will remain in effect through 2030 unless additional Congressional action is taken. However, pursuant to the Coronavirus Aid, Relief and Economic Security Act, or CARES Act, these Medicare sequester reductions were suspended from May 1, 2020 through December 31, 2020 due to the COVID-19 pandemic. The American Taxpayer Relief Act of 2012 among other things, reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

There has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the current administration's budget for fiscal year 2021 includes a $135 billion allowance to support legislative proposals seeking to reduce drug prices, increase competition, lower out-of-pocket drug costs for patients, and increase patient access to lower-cost generic and biosimilar drugs. On March 10, 2020, the current administration sent "principles" for drug pricing to Congress, calling for legislation that would, among other things, cap Medicare Part D beneficiary out-of-pocket pharmacy expenses, provide an option to cap Medicare Part D beneficiary monthly out-of-pocket expenses, and place limits on pharmaceutical price increases. Additionally, the current administration released a "Blueprint" to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products and reduce the out of pocket costs of product candidates paid by consumers.

On July 24, 2020, President Trump signed four Executive Orders directing the Secretary of the U.S. Department of Health and Human Services, or HHS, to: (1) eliminate protection under an Anti-Kickback Statute safe harbor for certain retrospective price reductions provided by drug manufacturers to sponsors of Medicare Part D plans or pharmacy benefit managers that are not applied at the point-of-sale; (2) allow the importation of certain drugs from other countries through individual waivers, permit the re-importation of insulin products, and prioritize finalization of FDA's December 2019 proposed rule to permit the importation of drugs from Canada; (3) ensure that payment by the Medicare program for certain Medicare Part B drugs is not higher than the payment by other comparable countries (depending on whether pharmaceutical manufacturers agree to other measures); and (4) allow certain low-income individuals receiving insulin and epinephrine purchased by a Federally Qualified Health Center, or FQHC, as part of the 340B drug program to purchase those drugs at the discounted price paid by the FQHC. On October 1, 2020, the FDA issued its final rule allowing importation of certain prescription drugs from Canada. On September 13, 2020, President Trump signed an Executive Order directing HHS to implement a rulemaking plan to test a payment model, pursuant to which Medicare would pay, for certain high-cost prescription drugs and biological products covered by Medicare Part B, no more than the most-favored-nation price (i.e., the lowest price) after adjustments, for a pharmaceutical product that the drug manufacturer sells in a member country of the Organization for Economic Cooperation and development that has a comparable per-capita gross domestic product. Although a number of these, and other proposed measures will require authorization through additional legislation to become effective, Congress and the current administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

HHS has already started the process of soliciting feedback on some of these measures and, at the same time, is immediately implementing others under its existing authority. For example, in May 2019, CMS issued a final rule to allow Medicare Advantage Plans the option of using step therapy, a type of prior authorization, for Part B drugs beginning January 1, 2020. This final rule codified CMS's policy change that was effective January 1, 2019.

Further, on May 30, 2018, the Right to Try Act, was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new product candidates that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a pharmaceutical manufacturer to make its product candidates available to eligible patients as a result of the Right to Try Act.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional health care authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our current or future product candidates or additional pricing pressures. In particular any policy changes through CMS as well as local state Medicaid programs could have a significant impact on our business.

Our revenue prospects could be affected by changes in healthcare spending and policy in the U.S. and abroad. We operate in a highly regulated industry and new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to healthcare availability, the method of delivery or payment for healthcare products and services could negatively impact our business, operations and financial condition.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future, including repeal, replacement or significant revisions to the ACA. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- the demand for our current or future product candidates, if we obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to obtain coverage and reimbursement approval for a product;
- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors, which may adversely affect our future profitability.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm and diminished profits and future earnings.

Although we do not currently have any products on the market, once we begin commercializing our product candidates, we will be subject to additional healthcare statutory and regulatory requirements and enforcement by the federal government and the states and foreign governments in which we conduct our business. Healthcare

providers, physicians and third-party payors play a primary role in the recommendation and prescription of any product candidates for which we obtain regulatory approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our product candidates for which we obtain regulatory approval. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment of up to ten years, and exclusion from government healthcare programs. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers, on the one hand, and prescribers, purchasers and formulary managers, on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution;
- the federal civil and criminal false claims and civil monetary penalties laws, including the federal False Claims Act, or FCA, imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to “cause” the submission of false or fraudulent claims. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false of fraudulent claim for purposes of the False Claims Act;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program (e.g. public or private), or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services; similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- the federal physician payment transparency requirements, sometimes referred to as the “Sunshine Act” under the ACA, require manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children’s Health Insurance Program to report to HHS information related to transfers of value made to physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests of such physicians and their immediate family members. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made to certain non-physician providers such as physician assistants and nurse practitioners;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing regulations, impose obligations on certain covered entity healthcare providers, health plans, and healthcare clearinghouses as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or

injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- federal price reporting laws, which require manufacturers to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursement and/or discounts on approved products; and
- analogous state laws and regulations, such as state anti-kickback and false claims laws may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers. Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures. Further, many state laws governing the privacy and security of health information in certain circumstances, differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Ensuring that our future business arrangements with third parties comply with applicable healthcare laws and regulations could involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations, including anticipated activities to be conducted by our sales team, were to be found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

Even if we receive regulatory approval for any of our product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to post-market study requirements, marketing and labeling restrictions, and even recall or market withdrawal if unanticipated safety issues are discovered following approval. In addition, we may be subject to penalties or other enforcement action if we fail to comply with regulatory requirements.

If the FDA or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, import, export, adverse event reporting, storage, advertising, promotion, monitoring, and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, establishment registration and listing, as well as continued compliance with cGMPs and GCPs for any clinical trials that we conduct post-approval. Any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing studies, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product. The FDA may also require a REMS in order to approve our product candidates, which could entail requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- manufacturing delays and supply disruptions where regulatory inspections identify observations of noncompliance requiring remediation;
- revisions to the labeling, including limitation on approved uses or the addition of additional warnings, contraindications or other safety information, including boxed warnings;
- imposition of a REMS which may include distribution or use restrictions;
- requirements to conduct additional post-market clinical trials to assess the safety of the product;
- clinical trial holds;
- fines, warning letters or other regulatory enforcement action;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any regulatory approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

European data collection is governed by restrictive regulations governing the use, processing and cross-border transfer of personal information.

In the event we decide to conduct clinical trials or continue to enroll subjects in our ongoing or future clinical trials, we may be subject to additional privacy restrictions. The collection, use, storage, disclosure, transfer, or

other processing of personal data regarding individuals in the EU, including personal health data, is subject to the EU General Data Protection Regulation, or GDPR. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches, and taking certain measures when engaging third-party processors. Compliance with the GDPR will be a rigorous and time-intensive process that may increase our cost of doing business or require us to change our business practices, and despite those efforts, there is a risk that we may be subject to fines and penalties, litigation, and reputational harm in connection with our European activities.

Laws and regulations governing any international operations we may have in the future may preclude us from developing, manufacturing and selling certain products outside of the United States and require us to develop and implement costly compliance programs.

If we expand our operations outside of the United States, we must dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which we plan to operate. The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering, authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered foreign officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Various laws, regulations and executive orders also restrict the use and dissemination outside of the United States, or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. If we expand our presence outside of the United States, it will require us to dedicate additional resources to comply with these laws, and these laws may preclude us from developing, manufacturing, or selling certain products and product candidates outside of the United States, which could limit our growth potential and increase our development costs.

The failure to comply with laws governing international business practices may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The Securities and Exchange Commission, or SEC, also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

Risks Relating to Employee Matters and Managing Growth

Our future success depends on our ability to retain key executives and experienced scientists and to attract, retain and motivate qualified personnel.

We are highly dependent on many of our key employees and members of our executive management team as well as the other principal members of our management, scientific and clinical team. Although we have entered into employment letter agreements with certain of our executive officers, each of them may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other

employees. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. The loss of the services of our executive officers or other key employees, including temporary loss due to illness, could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. Failure to succeed in clinical trials may make it more challenging to recruit and retain qualified scientific personnel.

In particular, we have experienced a very competitive hiring environment in Boston, Massachusetts, where we are headquartered. Many of the other pharmaceutical companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates than what we have to offer. If we are unable to continue to attract and retain high-quality personnel, the rate and success with which we can discover and develop product candidates and our business will be limited.

We may be unable to adequately protect our information systems from cyberattacks, which could result in the disclosure of confidential or proprietary information, including personal data, damage our reputation, and subject us to significant financial and legal exposure.

We rely on information technology systems that we or our third-party providers operate to process, transmit and store electronic information in our day-to-day operations. In connection with our product discovery efforts, we may collect and use a variety of personal data, such as names, mailing addresses, email addresses, phone numbers and clinical trial information. A successful cyberattack could result in the theft or destruction of intellectual property, data, or other misappropriation of assets, or otherwise compromise our confidential or proprietary information and disrupt our operations. Cyberattacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. Cyberattacks could include wrongful conduct by hostile foreign governments, industrial espionage, wire fraud and other forms of cyber fraud, the deployment of harmful malware, denial-of-service, social engineering fraud or other means to threaten data security, confidentiality, integrity and availability. A successful cyberattack could cause serious negative consequences for us, including, without limitation, the disruption of operations, the misappropriation of confidential business information, including financial information, trade secrets, financial loss and the disclosure of corporate strategic plans. Although we devote resources to protect our information systems, we realize that cyberattacks are a threat, and there can be no assurance that our efforts will prevent information security breaches that would result in business, legal, financial or reputational harm to us, or would have a material adverse effect on our results of operations and financial condition. Any failure to prevent or mitigate security breaches or improper access to, use of, or disclosure of our clinical data or patients' personal data could result in significant liability under state (e.g., state breach notification laws), federal (e.g., HIPAA, as amended by HITECH), and international law (e.g., the GDPR) and may cause a material adverse impact to our reputation, affect our ability to conduct new studies and potentially disrupt our business.

We rely on our third-party providers to implement effective security measures and identify and correct for any such failures, deficiencies or breaches. If we or our third-party providers fail to maintain or protect our information technology systems and data integrity effectively or fail to anticipate, plan for or manage significant disruptions to our information technology systems, we or our third-party providers could have difficulty preventing, detecting and controlling such cyber-attacks and any such attacks could result in the losses described above as well as disputes with physicians, patients and our partners, regulatory sanctions or penalties, increases in operating expenses, expenses or lost revenue or other adverse consequences, any of which could have a material adverse effect on our business, results of operations, financial condition, prospects and cash flows. Any failure by such third parties to prevent or mitigate security breaches or improper access to or disclosure of such information could have similarly adverse consequences for us. If we are unable to prevent or mitigate the impact of such security or data privacy breaches, we could be exposed to litigation and governmental investigations, which could lead to a potential disruption to our business. By way of example, the California Consumer Privacy Act, or CCPA, which went into effect on January 1, 2020, creates individual privacy rights for California consumers and increases the privacy and security obligations of entities handling certain personal data. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. In March 2020, the California State Attorney General has proposed varying versions of companion draft regulations which are not yet finalized. Despite the delay in adopting regulations, the California State Attorney General will commence enforcement actions against violators beginning July 1, 2020. The CCPA may increase our compliance costs and potential liability, and many similar laws have been proposed at the federal level and in other states. By way of example regarding foreign laws and regulations with respect to data privacy and security, the GDPR went into effect in the EU in May 2018 and introduces strict requirements for processing the personal data of EU data subjects. Companies that must comply with the GDPR face increased compliance obligations and risk, including more robust regulatory enforcement of data protection requirements and potential fines for noncompliance of up to €20 million or 4% of the annual global revenue of the noncompliant company, whichever is greater.

If we or third-party CMOs, CROs or other contractors or consultants fail to comply with U.S. and international data protection laws and regulations, it could result in government enforcement actions (which could include civil or criminal penalties), private litigation, and/or adverse publicity and could negatively affect our operating results and business. Moreover, clinical trial subjects about whom we or our potential collaborators obtain information, as well as the providers who share this information with us, may contractually limit our ability to use and disclose the information. Claims that we have violated individuals' privacy rights, failed to comply with data protection laws, or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

We may be unable to successfully integrate acquisitions, which may adversely impact our operations.

We have in the past and in the future may continue to acquire complementary businesses or technologies. Acquired technologies, products or businesses may not perform as we expect, and we may fail to realize anticipated synergies or results. In addition, our acquisition strategy may divert management's attention away from our existing business, and expose us to unanticipated problems or legal liabilities, including responsibility as a successor for undisclosed or contingent liabilities of acquired businesses or assets.

We have successfully integrated our past acquisitions of Arrys Therapeutics or Amplify Medicines, however, if we are unsuccessful in integrating any future acquisitions, it could impede us from realizing all of the benefits of those acquisitions and could weaken our business operations or future prospectus. The integration process may disrupt our business and, if new technologies, products or businesses are not implemented effectively, may preclude the realization of the full benefits expected by us and could harm our results of operations. In addition, the overall integration of new technologies, products or businesses may result in unanticipated problems, expenses, liabilities and competitive responses. The difficulties of integrating an acquisition include, among other things:

- issues in integrating the target company's technologies, product candidates or capabilities with ours;
- maintaining employee morale and retaining key employees;

- integrating the culture of the target company with ours;
- preserving important strategic relationships and collaborations; and
- consolidating corporate and administrative infrastructures and eliminating duplicative operations.

In addition, even if the operations of an acquisition are integrated successfully, we may not realize the full benefits of the acquisition, including the synergies, pipeline expansion or growth opportunities that we expect. These benefits may not be achieved within the anticipated time frame, or at all.

We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

As of November 30, 2020, we had 29 full-time employees. We expect to experience significant growth in the number of our employees and the scope of our operations, particularly as we function as a public company and in the areas of product development, regulatory affairs and, if any of our product candidates receives regulatory approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

We may acquire additional businesses or products, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

Risks Related to Our Common Stock and This Offering

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the market price of our common stock could decline. Based upon the number of shares of common stock, on an as-converted basis, outstanding as of December 31, 2020, upon the completion of this offering, we will have outstanding a total of shares of common stock, and assuming no exercise of the underwriters' option to purchase additional shares. Of these shares, as of the date of this prospectus, approximately shares of our common stock, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering, assuming that current stockholders do not purchase shares in this offering. The representatives of the underwriters, however, may, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. After the lock-up agreements expire, based upon the number of shares of common stock, on an as-converted basis,

outstanding as of December 31, 2020, up to an additional shares of common stock will be eligible for sale in the public market, % of which shares are held by directors, executive officers and other affiliates and will be subject to certain limitations of Rule 144 under the Securities Act of 1933, as amended, or the Securities Act.

Upon completion of this offering, shares of common stock that are either subject to outstanding options or reserved for future issuance under our equity incentive plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

After this offering, the holders of approximately shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the market our common stock.

Our executive officers, directors, principal stockholders and their affiliates will continue to exercise significant control over our company after this offering, which will limit your ability to influence corporate matters and could delay or prevent a change in corporate control.

Immediately following the completion of this offering, and disregarding any shares of common stock that they purchase in this offering, the existing holdings of our executive officers, directors, principal stockholders and their affiliates, including entities affiliated with Atlas Ventures, OrbiMed, Fidelity Management & Research Company, Celgene Corporation (BMS) and Omega Funds, will represent beneficial ownership, in the aggregate, of approximately % of our outstanding common stock, assuming no exercise of the underwriters' option to acquire additional common stock in this offering and assuming we issue the number of shares of common stock as set forth on the cover page of this prospectus. As a result, these stockholders, if they act together, will be able to influence our management and affairs and control the outcome of matters submitted to our stockholders for approval, including the election of directors and any sale, merger, consolidation, or sale of all or substantially all of our assets. These stockholders acquired their shares of common stock for substantially less than the price of the shares of common stock being acquired in this offering, and these stockholders may have interests, with respect to their common stock, that are different from those of investors in this offering and the concentration of voting power among these stockholders may have an adverse effect on the price of our common stock. In addition, this concentration of ownership might adversely affect the market price of our common stock by:

- delaying, deferring or preventing a change of control of us;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

See "Principal Stockholders" in this prospectus for more information regarding the ownership of our outstanding common stock by our executive officers, directors, principal stockholders and their affiliates.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

You will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering. Assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, purchasers of common stock in this offering will experience immediate dilution of $ per share in net tangible book value of the common stock. In

addition, investors purchasing common stock in this offering will contribute % of the total amount invested by stockholders since inception but will only own % of the shares of common stock outstanding. In the past, we issued options and other securities to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding securities are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. See "Dilution" for a more detailed description of the dilution to new investors in the offering.

We have broad discretion in how we use the proceeds of this offering and may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We will have considerable discretion in the application of the net proceeds of this offering. We intend to use the net proceeds from this offering to fund discovery and clinical development efforts as well as further expansion of our manufacturing capabilities, and infrastructure to support our pipeline, and to fund new and ongoing research activities, working capital and other general corporate purposes, which may include funding for the hiring of additional personnel, capital expenditures and the costs of operating as a public company. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the balance of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change" (generally defined as a greater than 50 percentage point change (by value) in the ownership of its equity over a three year period), the corporation's ability to use its pre-change net operating loss carryforwards and certain other pre-change tax attributes to offset its post-change income may be limited. We may have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of this offering or subsequent shifts in our stock ownership, some of which are outside our control. As of December 31, 2020, we had federal net operating loss carryforwards of approximately $, and our ability to utilize those net operating loss carryforwards could be limited by an "ownership change" as described above, which could result in increased tax liability to us. Furthermore, our ability to utilize our NOLs or credits is conditioned upon our attaining profitability and generating U.S. federal and state taxable income. As a result, the amount of the net operating loss and tax credit carryforwards presented in our consolidated financial statements could be limited and may expire unutilized. Federal net operating loss carryforwards generated in taxable years beginning after December 31, 2017 will not be subject to expiration. However, any such net operating loss carryforwards may only offset 80% of our annual taxable income in taxable years beginning after December 31, 2020.

Comprehensive tax reform legislation could adversely affect our business and financial condition.

The rules dealing with U.S. federal, state and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service, or IRS, and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect us or holders of our common stock. In recent years, many such changes have been made and changes are likely to continue to occur in the future. For example, the TCJA was enacted in 2017 and made significant changes to corporate taxation, including the reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, the limitation of the tax deduction for net interest expense to 30% of adjusted taxable income (except for certain small businesses), the limitation of the deduction for net operating losses from taxable years beginning after December 31, 2017 to 80% of current year taxable income and the elimination of net operating loss carrybacks generated in taxable years ending after December 31, 2017 (though any such net operating losses may be carried forward indefinitely), and the modification or repeal of many business deductions and credits.

Additionally, on March 27, 2020, President Trump signed into law the Coronavirus Aid, Relief, and Economic Security Act, which, among other things, suspends the 80% limitation on the deduction for net operating losses in taxable years beginning before January 1, 2021, permits a 5-year carryback of net operating losses arising in taxable years beginning after December 31, 2017 and before January 1, 2021, and generally caps the limitation on the deduction for net interest expense at 50% of adjusted taxable income for taxable years beginning in 2019 and 2020.

It cannot be predicted whether, when, in what form, or with what effective dates, new tax laws may be enacted, or regulations and rulings may be promulgated or issued under existing or new tax laws, which could result in an increase in our or our shareholders' tax liability or require changes in the manner in which we operate in order to minimize or mitigate any adverse effects of changes in tax law or in the interpretation thereof.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Our fourth amended and restated certificate of incorporation and amended and restated bylaws, which are to become effective at or prior to the completion of this offering, contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- a board of directors divided into three classes serving staggered three-year terms, such that not all members of the board will be elected at one time;
- a prohibition on stockholder action through written consent, which requires that all stockholder actions be taken at a meeting of our stockholders;
- a requirement that special meetings of the stockholders may be called only by the board of directors acting pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office, and special meetings of stockholders may not be called by any other person or persons;
- advance notice requirements for stockholder proposals and nominations for election to our board of directors;
- a requirement that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds (2/3) of all outstanding shares of our voting stock then entitled to vote in the election of directors;
- a requirement of approval of not less than a majority of all outstanding shares of our voting stock to amend any bylaws by stockholder action and not less than two-thirds (2/3) of all outstanding shares of our voting stock to amend specific provisions of our certificate of incorporation; and
- the authority of the board of directors to issue preferred stock on terms determined by the board of directors without stockholder approval, which preferred stock may include rights superior to the rights of the holders of common stock.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These anti-takeover provisions and other provisions in our fourth amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer or proxy contest involving our company. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing or cause us to take other corporate actions you desire. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

Our bylaws to be effective upon the consummation of this offering designate specific courts as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Pursuant to our bylaws that will become effective upon the completion of this offering, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for state law claims for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or other employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or our amended and restated certificate of incorporation or our amended and restated bylaws (including the interpretation, validity or enforceability thereof) or (iv) any action asserting a claim that is governed by the internal affairs doctrine (the Delaware Forum Provision). The Delaware Forum Provision will not apply to any causes of action arising under the Securities Act or the Exchange Act. Our amended and restated bylaws will further provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act (the Federal Forum Provision). In addition, our amended and restated bylaws that will become effective upon the completion of this offering will provide that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the Delaware Forum Provision and the Federal Forum Provision; provided, however, that stockholders cannot and will not be deemed to have waived our compliance with the U.S. federal securities laws and the rules and regulations thereunder.

The Delaware Forum Provision and the Federal Forum Provision in our bylaws may impose additional litigation costs on stockholders in pursuing any such claims. Additionally, these forum selection clauses in our amended and restated bylaws may limit our stockholders' ability to bring a claim in a judicial forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage the filing of such lawsuits against us and our directors, officers and employees even though an action, if successful, might benefit our stockholders. In addition, while the Delaware Supreme Court ruled in March 2020 that federal forum selection provisions purporting to require claims under the Securities Act be brought in federal court are "facially valid" under Delaware law, there is uncertainty as to whether other courts will enforce our Federal Forum Provision. If the Federal Forum Provision is found to be unenforceable, we may incur additional costs associated with resolving such matters. The Federal Forum Provision may also impose additional litigation costs on stockholders who assert that the provision is not enforceable or invalid. The Court of Chancery of the State of Delaware and the federal district courts of the United States may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

General Risks

We are subject to certain U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations. We can face serious consequences for violations.

Among other matters, U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations, which are collectively referred to as Trade Laws, prohibit companies and their employees, agents, clinical research organizations, legal counsel, accountants, consultants, contractors, and other partners from authorizing, promising, offering, providing, soliciting, or receiving directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Violations of Trade Laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We also expect our non-U.S. activities to increase in

time. We plan to engage third parties for clinical trials and/or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals and we can be held liable for the corrupt or other illegal activities of our personnel, agents, or partners, even if we do not explicitly authorize or have prior knowledge of such activities.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, in 2008, the global financial crisis caused extreme volatility and disruptions in the capital and credit markets and the current COVID-19 pandemic has caused significant volatility and uncertainty in U.S. and international markets. See "Risks Related to the Development of our Targeted Oncology and Other Programs and Product Candidates—The COVID-19 pandemic, or a similar pandemic, epidemic, or outbreak of an infectious disease may materially and adversely affect our business and our financial results and could cause a disruption to the development of our product candidates." A severe or prolonged economic downturn could result in a variety of risks to our business, including, weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Our employees, principal investigators, CROs and consultants may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk that our employees, principal investigators, CROs and consultants may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violate the regulations of the FDA and other regulatory authorities, including those laws requiring the reporting of true, complete and accurate information to such authorities; healthcare fraud and abuse laws and regulations in the United States and abroad; or laws that require the reporting of financial information or data accurately. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws also involve the improper use of information obtained in the course of clinical trials or creating fraudulent data in our preclinical studies or clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We intend to adopt, prior to the completion of this offering, a code of conduct applicable to all of our employees, but it is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

An active trading market for our common stock may not develop, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. Although we anticipate that our common stock will be approved for listing on The Nasdaq Global Market, or Nasdaq, an active trading market for our shares may never develop or be sustained following this offering. The initial public offering price of our common stock will be determined through negotiations between us and the underwriters. This initial public offering price may not be indicative of the market price of our common stock after this offering. In the absence of an active trading market for our common stock, investors may not be able to sell their common stock at or above the initial public offering price or at the time that they would like to sell.

We are an "emerging growth company" as defined in the JOBS Act and will be able to avail ourselves of reduced disclosure requirements applicable to emerging growth companies, which could make our common stock less attractive to investors and adversely affect the market price of our common stock.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earlier of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- providing only two years of audited financial statements in addition to any required unaudited interim financial statements and a correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. In this prospectus, we have not included all of the executive compensation-related information that would be required if we were not an emerging growth company.

Although we are still evaluating the JOBS Act, we currently intend to take advantage of some, but not all, of the available exemptions available to us so long as we qualify as an "emerging growth company." We have taken advantage of reduced reporting burdens in this prospectus. In particular, we have provided only two years of audited financial statements and have not included all of the executive compensation information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to use the extended transition period for new or revised accounting standards during the period in which we remain an emerging growth company; however, we may adopt certain new or revised accounting standards early.

We have elected to avail ourselves of this exemption and, therefore, we are not subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, changes in rules of U.S. generally accepted accounting principles or their interpretation, the adoption of new guidance or the application of existing guidance to changes in our business could significantly affect our financial position and results of operations. In addition, our independent registered public accounting firm will not be required to provide an attestation report on the effectiveness of our internal control over financial reporting so long as we qualify as an "emerging growth company," which may increase the risk that material weaknesses or significant deficiencies in our internal control over financial reporting go undetected. Likewise, so long as we qualify as an "emerging growth company," we may elect not to provide you with certain information, including certain financial information and certain information regarding compensation of our executive officers, that we would otherwise have been required to provide in filings we make with the SEC, which may make it more difficult for investors and securities analysts to evaluate our company. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile and may decline.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

The price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our common stock in this offering.

Our stock price is likely to be volatile. The stock market in general, and the market for biopharmaceutical companies in particular, have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- the success of competitive products or technologies;
- advancement of our preclinical programs, such as our targeted oncology programs, into clinical testing;
- results of clinical trials of our product candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our programs and product candidates or preclinical and clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;

- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this “Risk Factors” section.

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, and particularly after we are no longer an “emerging growth company,” we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the SEC and Nasdaq have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance.

Pursuant to Section 404, we will be required to furnish a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that neither we nor our independent registered public accounting firm will be able to conclude within the prescribed timeframe that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements. In additional, if we are not able to continue to meet these requirements, we may not be able to remain listed on Nasdaq.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon completion of this offering, we will become subject to the periodic reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act. We designed our disclosure controls and procedures to reasonably assure that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. We may never obtain research coverage by industry or financial

analysts. If no or few analysts commence coverage of us, the trading price of our stock would likely decrease. Even if we do obtain analyst coverage, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock may be volatile. The stock market in general, and Nasdaq and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Business,” contains express or implied forward-looking statements that are based on our management’s belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the initiation, timing, progress, results, and cost of our research and development programs and our current and future preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available, and our research and development programs;
- our ability to efficiently discover and develop product candidates;
- our ability and the potential to successfully manufacture our drug substances and product candidates for preclinical use, for clinical trials and on a larger scale for commercial use, if approved;
- the ability and willingness of our third-party strategic collaborators to continue research and development activities relating to our development candidates and product candidates;
- our ability to obtain funding for our operations necessary to complete further development and commercialization of our product candidates;
- our ability to obtain and maintain regulatory approval of our product candidates;
- our ability to commercialize our products, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model, and strategic plans for our business and product candidates;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates;
- estimates of our future expenses, revenue, capital requirements, and our needs for additional financing;
- the potential benefits of strategic collaboration agreements, our ability to enter into strategic collaborations or arrangements, and our ability to attract collaborators with development, regulatory and commercialization expertise;
- future agreements with third parties in connection with the commercialization of product candidates and any other approved product;
- the size and growth potential of the markets for our product candidates, and our ability to serve those markets;
- our financial performance;
- the rate and degree of market acceptance of our product candidates;
- regulatory developments in the United States and foreign countries;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- our ability to produce our products or product candidates with advantages in turnaround times or manufacturing cost;

- the success of competing therapies that are or may become available;
- our ability to attract and retain key scientific or management personnel;
- the impact of laws and regulations;
- our use of the proceeds from this offering;
- developments relating to our competitors and our industry;
- the effect of the COVID-19 pandemic, including mitigation efforts and economic effects, on any of the foregoing or other aspects of our business operations, including but not limited to our preclinical studies and clinical trials and any future studies or trials; and
- other risks and uncertainties, including those listed under the caption “Risk Factors.”

In some cases, you can identify forward-looking statements by terminology such as “may,” “should,” “expects,” “intends,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “continue” or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under the section titled “Risk Factors” and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this prospectus and the documents that we reference in this prospectus and have filed with the Securities and Exchange Commission as exhibits to the registration statement, of which this prospectus forms a part, completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

This prospectus also contains estimates, projections and other information concerning our industry, our business and the markets for our programs and product candidates. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from our own internal estimates and research as well as from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties and are subject to change based on various factors, including those discussed under the section titled “Risk Factors” and elsewhere in this prospectus.

USE OF PROCEEDS

We estimate that our net proceeds from the sale of shares of our common stock in this offering will be approximately $ million, or $ million if the underwriters exercise in full their option to purchase additional shares, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our net proceeds from this offering by $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A 1.0 million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) our net proceeds from this offering by $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. This information is illustrative only and will depend on the actual initial public offering price and other terms of this offering determined at pricing. We do not expect that a change in the initial price to the public or the number of shares by these amounts would have a material effect on uses of the proceeds from this offering, although a decrease in the initial offering price without a corresponding increase in the number of shares offered may accelerate the time at which we will need to seek additional capital.

We expect to use our net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $ million to $ million to advance the continued development of IK-930; including the completion of IND-enabling studies and completion of Phase 1 clinical trial(s);
- approximately $ million to $ million to advance the development of our ERK5 program; including nomination of a development candidate and initiation of Phase 1 clinical trial(s);
- approximately $ million to $ million to advance the clinical development of IK-175 and IK-412, our two programs partnered with BMS, through the completion of the ongoing Phase 1b clinical trials for each of program;
- approximately $ million to $ million to advance the clinical development of IK-007; including the completion of the ongoing Phase 1b clinical trial in MSS CRC;
- approximately $ million to $ million to fund further development of our preclinical programs towards IND filings and/or into clinical trials; and
- The remaining proceeds for general corporate purposes, which may include the hiring of additional personnel, capital expenditures, the in-licensing or acquisition of assets in line with our strategy and the costs of operating as a public company.

Our expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above and we expect that we will require additional funds in order to fully accomplish the specified uses of the proceeds of this offering. We may also use a portion of the net proceeds to in-license, acquire, or invest in complementary businesses or technologies to continue to build our pipeline, research and development capabilities and our intellectual property position, although we currently have no agreements, commitments, or understandings with respect to any such transaction.

Based on our current plans, we believe that our existing cash and cash equivalents, together with the anticipated net proceeds from this offering, will enable us to fund our operating expenses and capital expenditure

requirements into . The expected net proceeds from this offering will not be sufficient for us to fund any of our product candidates through regulatory approval, and we will need to raise substantial additional capital to complete the development and commercialization of our product candidates.

Due to the many inherent uncertainties in the development of our programs and product candidates, the amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our research and development, the timing of patient enrollment and evolving regulatory requirements, the timing and success of preclinical studies, our ongoing clinical trials or clinical trials we may commence in the future, the timing of regulatory submissions, any strategic alliances that we may enter into with third parties for our product candidates or strategic opportunities that become available to us, and any unforeseen cash needs.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation instruments, including short-term and long-term interest-bearing instruments, investment-grade securities, and direct or guaranteed obligations of the U.S. government. We cannot predict whether the proceeds invested will yield a favorable return. Our management will retain broad discretion in the application of the net proceeds we receive from our initial public offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. We do not intend to pay cash dividends to our stockholders in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions, and other factors that our board of directors may deem relevant. Investors should not purchase our common stock with the expectation of receiving cash dividends.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of September 30, 2020:

- on an actual basis;
- on a pro forma basis to give effect to (i) the acquisition of Amplify, which occurred on October 1, 2020, which includes the issuance of 7,863,094 shares of our Series A-2 preferred stock and 3,048,764 shares of common stock, the recognition of $10.7 million of expense related to the write-off of acquired in-process research and development assets with no future alternative use, and the recognition of other assets acquired and liabilities assumed, (ii) the issuance of 85,806,214 shares of our Series B preferred stock which occurred on December 21, 2020 for net proceeds of $116.4 million, and (iii) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 169,396,576 shares of common stock immediately prior to the completion of this offering; and
- on a pro forma as adjusted basis to give further effect to our sale in this offering of shares of common stock at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma as adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The following table should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Description of Capital Stock," and the consolidated financial statements and related notes appearing elsewhere in this prospectus.

	As of September 30, 2020		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(in thousands, except share and per share data)		
Cash and cash equivalents	$ 55,860	$175,781	$
Redeemable convertible preferred stock (Series A and A-1), $0.001 par value, 75,727,268 shares authorized, issued and outstanding, actual (liquidation preference of $75,727,268 as of September 30, 2020); no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	78,867	—	—
Stockholders' (deficit) equity:			
Preferred stock, $0.001 par value, no shares authorized, issued or outstanding, actual; shares authorized, no shares issued outstanding, pro forma and pro forma as adjusted	—	—	—
Common stock, $0.001 par value, 113,795,082 shares authorized, 19,021,056 issued and outstanding, actual; 230,000,000 shares authorized, 191,466,396 issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	19	191	
Additional paid-in capital	6,769	215,005	
Accumulated deficit	(85,288)	(95,977)	
Total stockholders' (deficit) equity	(78,500)	119,219	
Total capitalization	$ 367	$119,219	$

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as

adjusted amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity, and total capitalization by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A 1.0 million share increase (decrease) in the number of shares offered by us would increase (decrease) the pro forma as adjusted amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $ million, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. This information is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The actual, pro forma, and pro forma as adjusted information set forth in the table excludes:

- 19,046,758 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2020, at a weighted average exercise price of $0.48 per share;
- shares of our common stock that will become available for future issuance under our 2021 Stock Option and Incentive Plan, which will become effective in connection with the completion of this offering; and
- shares of our common stock that will become available for future issuance under our 2021 Employee Stock Purchase Plan, which will become effective in connection with the completion of this offering.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

Our historical net tangible book value (deficit) as of September 30, 2020 was $(78.6) million, or $(4.13) per share of our common stock. Our historical net tangible book value (deficit) is the amount of our total tangible assets less our total liabilities and preferred stock, which is not included within stockholders' (deficit) equity. Historical net tangible book value (deficit) per share represents our historical net tangible book value (deficit) divided by the 19,021,056 shares of our common stock outstanding as of September 30, 2020.

Our pro forma net tangible book value as of September 30, 2020 was $119.2 million, or $0.62 per share of our common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to (i)) the acquisition of Amplify, which occurred on October 1, 2020, which includes the issuance of 7,863,094 shares of our Series A-2 preferred stock and 3,048,764 shares of common stock, the recognition of $10.7 million of expense related to the write-off of acquired in-process research and development assets with no future alternative use, and the recognition of other assets acquired and liabilities assumed, (ii) the issuance of 85,806,214 shares of our Series B preferred stock which occurred on December 21, 2020 for net proceeds of $116.4 million, and (iii) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 169,396,576 shares of common stock immediately prior to the completion of this offering. Pro forma net tangible book value per share represents pro forma net tangible book value divided by the total number of shares outstanding as of September 30, 2020, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into common stock immediately prior to the completion of this offering.

After giving further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of September 30, 2020 would have been $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value per share of $ to existing stockholders and immediate dilution of $ in pro forma as adjusted net tangible book value per share to new investors purchasing common stock in this offering. Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the assumed initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share		$
Historical net tangible book value per share as of September 30, 2020	$(4.13)	
Increase in net tangible book value per share attributable to the pro forma adjustments described above	4.75	
Pro forma net tangible book value per share as of September 30, 2020, before giving effect to this offering	0.62	
Increase in pro forma net tangible book value per share attributable to investors purchasing shares in this offering		
Pro forma as adjusted net tangible book value per share immediately after this offering		
Dilution in pro forma as adjusted net tangible book value per share to new investors purchasing shares in this offering		$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net

tangible book value by $ million, our pro forma as adjusted net tangible book value per share after this offering by $ and dilution per share to new investors purchasing shares in this offering by $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A 1.0 million share increase in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase the pro forma as adjusted net tangible book value per share after this offering by $ and decrease the dilution per share to new investors participating in this offering by $, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A 1.0 million share decrease in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease the pro forma as adjusted net tangible book value per share after this offering by $ and increase the dilution per share to new investors participating in this offering by $, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares in full, our pro forma as adjusted net tangible book value per share after this offering would be $ per share, representing an immediate increase in pro forma as adjusted net tangible book value per share of $ to existing stockholders and immediate dilution in pro forma as adjusted net tangible book value per share of $ to new investors purchasing common stock in this offering, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If any shares are issued upon exercise of outstanding options, you will experience further dilution.

The following table summarizes, on the pro forma as adjusted basis described above, the differences between the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid by existing stockholders and by new investors purchasing shares of common stock in this offering. The calculation below is based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	191,466,396	%	$214,446,765	%	$ 1.03
New investors					$
Total		100.0%	$	100.0%	

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. A 1.0 million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming no change in the assumed initial public offering price.

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common

stock held by existing stockholders would be reduced to % of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors participating in the offering would be increased to % of the total number of shares of our common stock outstanding after this offering.

The number of shares of our common stock to be outstanding after this offering is based on 191,466,396 shares of our common stock outstanding as of September 30, 2020, which assumes (i) the automatic conversion of all of our outstanding preferred stock into 169,396,576 shares of common stock immediately prior to the completion of this offering, which includes 7,863,094 shares of our Series A-2 preferred stock issued on October 1, 2020 and 85,806,214 shares of our Series B preferred stock issued on December 21, 2020 and (ii) the issuance of 3,048,764 shares of common stock issued on October 1, 2020, and excludes:

- 19,046,758 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2020, at a weighted average exercise price of $0.48 per share;
- shares of our common stock that will become available for future issuance under our 2021 Stock Option and Inventive Plan, or 2021 Plan, which will become effective in connection with the completion of this offering; and
- shares of our common stock that will become available for future issuance under our 2021 Employee Stock Purchase Plan, which will become effective in connection with the completion of this offering.

To the extent that outstanding options are exercised or shares are issued under our 2021 Plan, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities may result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

You should read the following summary financial data together with our consolidated financial statements and the related notes appearing at the end of this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this prospectus. We have derived the statement of operations data for the years ended December 31, 2018 and 2019 and the balance sheet data as of December 31, 2018 and 2019 from our audited financial statements appearing elsewhere in this prospectus. The statement of operations data for the nine months ended September 30, 2019 and 2020 and the balance sheet data as of September 30, 2020 have been derived from our unaudited financial statements appearing elsewhere this prospectus and have been prepared on the same basis as the audited financial statements. In the opinion of management, the unaudited data reflect all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial information in those statements. Our historical results are not necessarily indicative of results that should be expected in any future period, and our results for any interim period are not necessarily indicative of results that should be expected for any full year.

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2018	2019	2019	2020
	(In thousands, except share and per share data)			
Statement of Operations Data:				
Research and development revenue under collaboration agreement	$ —	$ 13,753	$ 10,949	$ 9,129
Service revenue (related party)	990	—	—	—
Total revenue	990	13,753	10,949	9,129
Operating expenses:				
Research and development	38,986	24,938	18,974	21,445
General and administrative	2,898	7,307	5,024	6,150
Total operating expenses	41,884	32,245	23,998	27,595
Loss from operations	(40,894)	(18,492)	(13,049)	(18,466)
Other income	29	1,675	1,340	261
Net loss and comprehensive loss	$ (40,865)	$ (16,817)	$ (11,709)	$ (18,205)
Net loss per share attributable to common stockholders, basic and diluted(1)	$ (3.35)	$ (0.89)	$ (0.62)	$ (0.96)
Weighted average shares of common stock outstanding, basic and diluted	12,193,711	18,945,673	18,938,256	19,013,848
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)(2)		$		$
Pro forma weighted average shares of common stock outstanding, basic and diluted (unaudited)(2)				

(1) See Note 16 and to our consolidated financial statements appearing elsewhere in this prospectus for details on the calculation of basic and diluted net loss per share.

(2) Pro forma basic and diluted net loss per share attributable to common stockholders have been prepared to give effect to the automatic conversion of all shares of preferred stock outstanding into shares of common stock as if the conversion had occurred on the later of the beginning of the period presented or the date the preferred shares were issued.

	As of December 31,		As of September 30,	
	2018	2019	2019	2020
	(in thousands)			
Consolidated Balance Sheet Data:				
Cash and cash equivalents	$ 18,156	$ 82,083	$ 90,260	$ 55,860
Working capital(1)	16,156	60,908	74,846	31,005
Total assets	20,676	85,974	93,733	60,764
Redeemable convertible preferred stock	62,576	78,867	78,867	78,867
Total stockholders' deficit	(45,840)	(61,463)	(56,714)	(78,500)

(1) We define working capital as current assets less current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the "Selected Consolidated Financial Data" section of this prospectus and our consolidated financial statements and the related notes included elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus includes forward-looking statements that involve risks and uncertainties, such as statements of our plans, strategies, objectives, expectations and intentions. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a targeted oncology company focused on developing novel cancer therapies targeting key signaling pathways that drive the formation and spread of cancer. Our programs focus on key cancer driver pathways that are well-validated in scientific literature but lack approved or effective therapies and therefore have the potential to address high unmet medical needs. By leveraging our deep understanding of discovery chemistry, translational science, and patient-centric drug development, we have built a deep pipeline of wholly owned and partnered programs focused on genetically defined or biomarker-driven cancers, which enables us to target specific patient populations that we believe are most likely to respond to treatment with our product candidates. Since we commenced operations in 2016, we have discovered or developed five oncology programs that include four product candidates in either IND-enabling studies or clinical development.

Our lead targeted oncology product candidate, IK-930, is an oral small molecule inhibitor of the transcriptional enhanced associate domain, or TEAD, transcription factor in the Hippo signaling pathway. The Hippo pathway is widely accepted as a key and prevalent driver of cancer pathogenesis and is genetically altered in approximately 10% of all cancers, and such genetic alterations are generally associated with poor clinical outcomes. We intend to pursue clinical development of IK-930 across a wide range of tumor types with known Hippo pathway mutations, and plan to focus our initial development efforts on indications that provide the potential for rapid clinical development to achieve proof-of-concept, such as mesothelioma and soft tissue sarcomas. We intend to submit an Investigational New Drug application, or IND, to the U.S. Food and Drug Administration, or FDA, for IK-930 in the second half of 2021.

For our second targeted oncology program, we have discovered and plan to develop oral small molecule inhibitors of extracellular signal-related kinase 5, or ERK5, a downstream enzyme in the RAS signaling pathway, which have the potential to bring therapeutic benefit to cancer patients with a mutation in the kirsten rat sarcoma, or KRAS, gene, which is an oncogene implicated in many cancers. We anticipate nominating a development candidate for the ERK5 program and initiating IND-enabling studies in the second half of 2021 with the goal of submitting an IND in the second half of 2022.

In addition to our targeted oncology programs, we have three product candidates designed to modulate the tumor microenvironment in specific patient populations by leveraging biomarker-driven patient enrichment strategies. Two of these product candidates, IK-175 and IK-412, are partnered with Bristol-Myers Squibb Company, or BMS, which we believe validates our ability to advance internally developed product candidates into clinical development using biomarker-driven patient enrichment strategies.

We were incorporated as a Delaware corporation on March 2, 2016, and our headquarters is located in Boston, Massachusetts. On December 3, 2019, we formally changed our name to Ikena Oncology, previously Kyn Therapeutics. Since our inception, we have devoted substantially all of our efforts to organizing and staffing our company, acquiring intellectual property, business planning, raising capital, conducting discovery, research and development activities, and providing general and administrative support for these operations. We do not

have any products approved for sale and have not generated any revenue from product sales. To date, we have funded our operations primarily through private placements of preferred stock, payments from a collaboration arrangement and related party revenue. Through September 30, 2020, we have raised an aggregate of approximately $122.8 million, of which $95.0 million is related to aggregate upfront consideration related to our master collaboration agreement with BMS, or BMS Collaboration Agreement, which consisted of approximately $80.5 million in cash and an equity investment of approximately $14.5 million for which we issued shares of our Series A-1 redeemable convertible preferred stock pursuant to a separate stock purchase agreement, and $27.8 million of net proceeds from the issuance of redeemable convertible preferred stock to other investors. We also obtained $11.3 million in cash from our acquisition of Arrys Therapeutics, Inc., or Arrys.

Subsequent to September 30, 2020, we obtained $3.7 million in cash from our acquisition of Amplify Medicines, Inc., or Amplify, and raised $116.4 million of net proceeds from the issuance of Series B redeemable convertible preferred stock.

We have incurred significant net losses in every year since our inception and expect to continue to incur significant expenses and increasing net losses for the foreseeable future. Our net losses may fluctuate significantly from quarter to quarter and year to year and could be substantial. Our ability to generate product revenue sufficient to achieve profitability will depend on the successful development and eventual commercialization of one or more of our current or future product candidates. Our net losses were $40.9 million and $16.8 million and for the years ended December 31, 2018 and 2019, respectively and $11.7 million and $18.2 million for the nine months ended September 30, 2019 and 2020, respectively. As of September 30, 2020, we had an accumulated deficit of $85.3 million. We anticipate that our expenses will increase significantly as we:

- advance the development of our product candidate pipeline;
- initiate and continue research and preclinical and clinical development of potential new product candidates;
- maintain, expand and protect our intellectual property portfolio;
- acquire or in-license additional product candidates and technologies;
- expand our infrastructure and facilities to accommodate our growing employee base and ongoing development activities;
- establish agreements with contract research organizations, or CROs, and contract manufacturing organizations, or CMOs, in connection with our preclinical studies and clinical trials;
- require the manufacture of larger quantities of our product candidates for clinical development and potential commercialization;
- seek marketing approvals for our product candidates that successfully complete clinical trials, if any;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval; and
- add operational, financial and management information systems and personnel, including personnel to support our research and development programs, any future commercialization efforts and our transition to operating as a public company following the completion of this offering.

As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through the sale of equity instruments, debt financings, or other capital sources, which may include collaborations with other companies or other strategic transactions. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on favorable terms, or at all. If we fail to raise capital or enter into such agreements as and when needed, we may have to significantly delay, reduce or eliminate the development and commercialization of one or more of our product candidates.

We will not generate revenue from product sales unless and until we successfully complete clinical development and obtain marketing approval for our product candidates. The lengthy process of securing marketing approvals for new drugs requires the expenditure of substantial resources. Any delay or failure to obtain regulatory approvals would materially adversely affect the development efforts of our product candidates and our business overall. Because of the numerous risks and uncertainties associated with product development, we are unable to predict the timing or amount of increased expenses or when or if we will be able to achieve or maintain profitability. Even if we are able to generate revenue from product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

If we raise additional funds through collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce, or terminate our product development programs or any future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

As of September 30, 2020, we had cash and cash equivalents of $55.9 million. We believe the existing cash and cash equivalents on hand as of December 31, 2020, together with the anticipated net proceeds from this offering, will enable us to fund our operating expenses and capital expenditure requirements through . We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. See "—Liquidity and capital resources."

Impact of COVID-19 Pandemic

In March 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic, which continues to spread throughout the United States and worldwide. The ultimate extent of the impact of the COVID-19 pandemic on our business, financial condition and results of operations is highly uncertain and will depend on future developments that cannot be predicted, including new information that may emerge concerning the severity of the COVID-19 pandemic and actions taken by government authorities and businesses to contain or prevent the further spread of COVID-19. For instance, a recurrence or continuation of COVID-19 cases could cause a more widespread or severe impact on commercial activity depending on where infection rates are highest. If we or any of the third parties with whom we engage were to experience any shutdowns or other prolonged business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially negatively affected, which could have a material adverse impact on our business, results of operations and financial condition.

We have been carefully monitoring the COVID-19 pandemic and its potential impact on our business and have taken important steps to help ensure the safety of our employees and their families and to reduce the spread of COVID-19. We have established a work-from-home policy for all employees, other than those performing or supporting business-critical operations, such as certain members of our laboratory and facilities staff. For those employees, we have implemented stringent safety measures designed to comply with applicable federal, state and local guidelines instituted in response to the COVID-19 pandemic. We have also maintained efficient communication with our partners and clinical sites as the COVID-19 situation has progressed. We have taken these precautionary steps while maintaining business continuity so that we can continue to progress our programs. While we have experienced some delays in enrollment and site closures at certain of our third-party clinical trial sites, these delays have not had a material impact on our development timelines for our product candidates. We will continue to monitor developments as we address the disruptions and uncertainties relating to the COVID-19 pandemic. See "Risk Factors" for a discussion of the potential adverse impact of the COVID-19 pandemic on our business, financial condition and results of operations.

Components of our Results of Operations

Revenue

We have not generated any revenue from product sales and do not expect to generate any revenue from the sale of products in the foreseeable future. If our development efforts for our product candidates are successful and result in regulatory approval and successful commercialization efforts, we may generate revenue in the future from product sales. We cannot predict if, when, or to what extent we will generate revenue from the commercialization and sale of our product candidates. We may never succeed in obtaining regulatory approval for any of our product candidates.

All of our revenue has been derived from research and development revenue under our BMS Collaboration Agreement and service revenue related to our service agreements with related parties.

Collaboration Agreement and Stock Purchase Agreement with BMS

In January 2019, we entered into the BMS Collaboration Agreement with Celgene Corporation (which was acquired by BMS in November 2019), pursuant to which BMS may elect in its sole discretion to exclusively license rights to develop and commercialize compounds (and products and diagnostic products containing such compounds) that modulate the activity of two collaboration targets, kynurenine and aryl hydrocarbon receptor, or AHR, excluding AHR agonists for inverse agonists, which we are developing as IK-175 and IK-412, respectively. On a program-by-program basis, through the completion of a Phase 1b clinical trial for each of IK-175 and IK-412, BMS has the exclusive license to develop, commercialize and manufacture the relevant product candidate worldwide. Concurrent with execution of the BMS Collaboration Agreement, we entered into a stock purchase agreement with Celgene Corporation (now BMS) in November 2019, or the Stock Purchase Agreement, pursuant to which we issued Celgene Corporation 14,545,450 shares of Series A-1 preferred stock.

BMS paid a total of $95.0 million in aggregate upfront consideration related to the BMS Collaboration Agreement and Stock Purchase Agreement. We are eligible to receive $50.0 million, in case of an exercise of its option with respect to IK-175, and $40.0 million, in case of an exercise of its option with respect to IK-412. If we do not complete a Phase 1b clinical trial by the end of the research term, we may elect to provide a data package to BMS upon which BMS may exercise the foregoing option for an additional $0.25 million fee. Upon the exercise of the delivery of each license, we become eligible to receive up to $265.0 million in regulatory milestones and $185.0 million in commercial milestones as well as a tiered royalties at rates ranging from the high single to low teen percentages based on worldwide annual net sales by BMS, subject to specified gross sale reductions.

Operating Expenses

Our operating expenses since inception have consisted solely of research and development costs and general and administrative costs.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our research and development activities. These efforts and costs include external research costs, personnel costs, consultants, supplies, license fees and facility-related expenses. We expense research and development costs as incurred. These expenses include:

- employee-related expenses, including salaries, related benefits and stock-based compensation expense, for employees engaged in research and development functions;
- expenses incurred under agreements with CROs which are primarily engaged to support our clinical trials;

- expenses incurred under agreements with CMOs, which are primarily engaged to provide drug substance and product for our preclinical research and development programs, nonclinical studies and other scientific development services;
- the cost of acquiring and manufacturing preclinical study materials, including manufacturing registration and validation batches;
- facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities and insurance;
- acquisition of in-process research and development assets that have no alternative future use;
- costs related to compliance with quality and regulatory requirements; and
- payments made under third-party licensing agreements.

Advance payments that we make for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. Such amounts are recognized as an expense as the goods are delivered or the related services are performed, or until it is no longer expected that the goods will be delivered or the services rendered.

Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect that our research and development expenses will increase substantially in connection with our planned clinical development activities in the near term and in the future. At this time, we cannot accurately estimate or know the nature, timing and costs of the efforts that will be necessary to complete the clinical development of, or obtain regulatory approval for, any of our current or future product candidates. This is due to the numerous risks and uncertainties associated with product development and commercialization, including the following:

- our ability to add and retain key research and development personnel;
- our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize our product candidates;
- our successful enrollment in and completion of clinical trials, including our ability to generate positive data from any such trials;
- the size and cost of any future clinical trials for existing or future product candidates in our pipeline;
- the costs associated with the development of any additional programs we identify in-house or acquire through collaborations and other arrangements and the success of such collaborations;
- the terms and timing of any additional collaborations, license or other arrangement, including the timing of any payments thereunder;
- our ability to establish and maintain agreements and operate with third-party manufacturers for clinical supply for our clinical trials and commercial manufacturing, if any of our product candidates are approved;
- costs related to manufacturing of our product candidates or to account for any future changes in our manufacturing plans;
- our ability to obtain and maintain patents, trade secret and other intellectual property protection and regulatory exclusivity for our product candidates, both in the United States and internationally;
- our ability to obtain and maintain third-party insurance coverage and adequate reimbursement for our product candidates, if and when approved;
- the acceptance of our product candidates, if approved, by patients, the medical community and third-party payors;

- effectively competing with other products if our product candidates are approved;
- the impact of any business interruptions to our operations, including the timing and enrollment of patients in our planned clinical trials, or to those of our manufacturers, suppliers, or other vendors resulting from the COVID-19 pandemic or similar public health crisis; and
- our ability to maintain a continued acceptable safety profile for our therapies following approval.

A change in the outcome of any of these variables with respect to the development of our product candidates could significantly change the costs and timing associated with the development of that product candidate. We may never succeed in obtaining regulatory approval for any of our product candidates.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance and administrative functions. General and administrative expenses also include direct and allocated facility-related costs as well as professional fees for legal, patent, consulting, investor and public relations, accounting, auditing, tax services and insurance costs.

We expect that our general and administrative expenses will increase as our organization and headcount needed in the future to support continued research and development activities and potential commercialization of our product candidates. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, attorneys and accountants, among other expenses. Additionally, we expect to incur increased expenses associated with being a public company, including costs of additional personnel, accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and Securities and Exchange Commission, or SEC, requirements, director and officer insurance costs, and investor and public relations costs.

Results of Operations

Comparison of the Years Ended December 31, 2018 and 2019

The following table summarizes our results of operations for the years ended December 31, 2018 and 2019:

	Year Ended December 31,		Change
	2018	2019	
	(in thousands)		
Revenue:			
Research and development revenue under collaboration agreement	$ —	$ 13,753	$ 13,753
Service revenue (related party)	990	—	(990)
Total revenue	990	13,753	12,763
Operating expenses:			
Research and development	38,986	24,938	(14,048)
General and administrative	2,898	7,307	4,409
Total operating expenses	41,884	32,245	(9,639)
Loss from operations	(40,894)	(18,492)	22,402
Other income	29	1,675	1,646
Net loss	$(40,865)	$(16,817)	$ 24,048

Revenue

Related party revenue of $1.0 million for the year ended December 31, 2018 was related to services performed on behalf of related entities. We had no related party revenue for the year ended December 31, 2019.

We had no research and development revenue under collaboration agreement in the year ended December 31, 2018. The research and development revenue under collaboration agreement of $13.8 million for the year ended December 31, 2019 related to the BMS Collaboration Agreement for the IK-175 and IK-412 programs which was executed in January 2019.

Research and Development Expenses

The following table summarizes our general and administrative expenses for each period presented:

	Year Ended December 31,		Change
	2018	2019	
		(in thousands)	
Direct research and development expenses by program:			
IK-930	$ —	$ 1,276	$ 1,276
IK-175	4,204	5,449	1,245
IK-412	3,328	4,371	1,043
IK-007	265	5,275	5,010
Other discovery stage programs	—	1,513	1,513
Acquisition of in-process research and development assets	28,463	—	(28,463)
Research and development personnel and overhead expenses	2,726	7,054	4,328
Total research and development expenses	$ 38,986	$ 24,938	$(14,048)

Research and development expense was $39.0 million for the year ended December 31, 2018, compared to $24.9 million for the year ended December 31, 2019. Included within research and development personnel and overhead expenses is stock-based compensation expense of $0.1 million and $0.5 million for the years ended December 31, 2018 and 2019, respectively. The decrease in research and development expense was primarily attributable to expense recognized during 2018 related to the acquisition of in process research and development assets of $28.5 million as a result of the acquisition of Arrys in December 2018. Excluding the expense associated the acquisition of in-process research and development, research and development expenses increased by $14.4 million. This was primarily due to initiation of clinical activities for IK-007, completion of IND-enabling studies and manufacturing development costs for IK-175, preclinical and manufacturing development costs for IK-412, discovery and preclinical activities for IK-930 and research activities for other discovery stage programs. In addition, research and development expenses related to personnel and overhead expenses increased due to an increase in headcount.

General and Administrative Expenses

General and administrative expense was $2.9 million for the year ended December 31, 2018, as compared to $7.3 million for the year ended December 31, 2019. General and administrative expense includes $0.2 million and $0.7 million of stock-based compensation expense for the years ended December 31, 2018 and 2019, respectively. The increase was primarily attributable to an increase in compensation expense due to an increase in headcount, as well as general increases in legal and consulting expenses.

Comparison of the Nine Months Ended September 30, 2019 and 2020

The following table summarizes our results of operations for the nine months ended September 30, 2019 and September 30, 2020:

	Nine Months Ended September 30,		Change
	2019	2020	
	(in thousands)		
Revenue:			
Research and development revenue under collaboration agreement	$ 10,949	$ 9,129	$ (1,820)
Total revenue	10,949	9,129	(1,820)
Operating expenses:			
Research and development	18,974	21,445	2,471
General and administrative	5,024	6,150	1,126
Total operating expenses	23,998	27,595	3,597
Loss from operations	(13,049)	(18,466)	(5,417)
Other income	1,340	261	(1,079)
Net loss	$ (11,709)	$ (18,205)	$ (6,496)

Revenue

Research and development revenue under collaboration agreement was $10.9 million for the nine months ended September 30, 2019, compared to $9.1 million for the nine months ended September 30, 2020. This decrease was primarily attributable to a decrease in the amount of activities related to our IK-412 program under the BMS Collaboration Agreement due to timing of drug substance availability and partially offset by an increase in the amount of activities related to the IK-175 program. The BMS Collaboration Agreement commenced in the nine months ended September 30, 2019 and program setup costs were incurred in this period.

Research and Development Expenses

The following table summarizes our research and development expenses for each period presented:

	Nine Months Ended September 30,		Change
	2019	2020	
	(in thousands)		
Direct research and development expenses by program:			
IK-930	$ 607	$ 3,024	$ 2,417
IK-175	4,382	4,963	581
IK-412	3,562	706	(2,856)
IK-007	4,304	4,353	49
Other discovery stage programs	908	1,953	1,045
Research and development personnel and overhead expenses	5,211	6,446	1,235
Total research and development expenses	$ 18,974	$ 21,445	$ 2,471

Research and development expense was $19.0 million for the nine months ended September 30, 2019, as compared to $21.4 million for the nine months ended September 30, 2020. Included within research and development personnel and overhead expenses is stock-based compensation expense of $0.3 million and $0.5 million for the nine months ended September 30, 2019 and 2020, respectively. The increase in research and development expense was primarily attributable to the initiation of clinical activities for IK-175, completion of studies to support drug candidate and initiation of IND-enabling studies for IK-930 and expenses related to

research activities for other discovery stage programs. In addition, research and development personnel and overhead expenses increased due to an increase in headcount. This increase was offset by a decrease attributable to timing of drug substance availability for IK-412.

General and Administrative Expenses

General and administrative expense was $5.0 million for the nine months ended September 30, 2019 as compared to $6.2 million for the nine months ended September 30, 2020. General and administrative expense includes $0.5 million and $0.6 million of stock-based compensation expense for the nine months ended September 30, 2019 and 2020, respectively. The increase in general and administrative expenses was primarily attributable to an increase in compensation expenses due to an increase in headcount.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have not generated any revenue from product sales and have incurred significant operating losses. We have not yet commercialized any products and we do not expect to generate revenue from sales of any product candidates for several years, if ever. To date, we have financed our operations primarily through private placements of preferred stock and from upfront payments from the BMS Collaboration Agreement. Through September 30, 2020, we have raised an aggregate of $122.8 million, of which $95.0 million related to aggregate upfront consideration related to the BMS Collaboration Agreement, which consisted of approximately $80.5 million in cash and an equity investment of approximately $14.5 million for which we issued shares of our Series A-1 redeemable convertible preferred stock pursuant to a separate stock purchase agreement, and $27.8 million of net proceeds from the issuance of redeemable convertible preferred stock to other investors. We also obtained $11.3 million in cash from our acquisition of Arrys. Subsequent to September 30, 2020, we obtained $3.7 million in cash from our acquisition of Amplify and raised $116.4 million of net proceeds from the issuance of Series B redeemable convertible preferred stock. As of September 30, 2020, we had cash and cash equivalents of $55.9 million.

Cash Flows

The following table summarizes our sources and uses of cash for the years ended December 31, 2019 and 2018, and nine months ended September 30, 2019 and 2020:

	Year Ended December 31,		Nine Months Ended September 30,	
	2018	2019	2019	2020
	(in thousands)			
Net cash (used in) provided by operating activities	$(11,608)	$47,927	$55,968	$(25,256)
Net cash provided by (used in) investing activities	10,969	(316)	(179)	(116)
Net cash provided by financing activities	—	16,316	16,316	21
Net increase (decrease) in cash and cash equivalents	$ (639)	$63,927	$72,105	$(25,351)

Operating Activities

During the year ended December 31, 2018, we used $11.6 million of cash in operating activities primarily resulting from cash utilized to fund our net loss of $40.9 million. The net loss included $28.5 million of non-cash research and development expense for the write-off of acquired in-process research and development and $0.7 million of other non-cash expenses. Operating assets and liabilities changed by $0.1 million.

During the year ended December 31, 2019, operating activities provided $47.9 million primarily related to $78.7 million of upfront consideration from the BMS Collaboration Agreement, of which $13.8 million was

recognized during the period and $65.0 million was deferred as of December 31, 2019. We utilized cash to fund our net loss of $16.8 million, which includes the $13.8 million of revenue recognized as a result of the BMS Collaboration Agreement and $1.3 million of other non-cash expense. In addition, there was a net use of $1.5 million to fund changes in prepaid expenses, other current assets, accounts payable, accrued expenses and other current liabilities.

During the nine months ended September 30, 2019, operating activities provided $56.0 million primarily related to $78.7 million of upfront consideration related to the BMS Collaboration Agreement, of which $10.9 million was recognized during the period and $67.8 million was deferred as of September 30, 2019. We utilized cash to fund our net loss of $11.7 million, which includes the $10.9 million of revenue recognized as a result of the BMS Collaboration Agreement and $0.9 million in other non-cash expense. In addition, there was a net use of $1.0 million to fund changes in prepaid expense and other current assets.

During the nine months ended September 30, 2020, we used $25.3 million in operating activities which primarily related to cash utilized to fund our net loss of $18.2 million, which includes $9.1 million of non-cash revenue recognition and $2.1 million in non-cash expense.

Investing Activities

During the year ended December 31, 2018 net cash provided by investing activities was $11.0 million due to $11.3 million of cash obtained in the acquisition of Arrys, and partially offset by $0.3 million of cash used in purchases of property and equipment.

During the year ended December 31, 2019 we used $0.3 million of cash in investing activities related to purchases of property and equipment.

During the nine months ended September 30, 2019 we used $0.2 million of cash in investing activities which was related to purchases of property and equipment.

During the nine months ended September 30, 2020 we used $0.1 million of cash in investing activities which was related to purchases of property and equipment.

Financing Activities

During the year ended December 31, 2018 there was no net cash provided in or used by financing activities.

During the year ended December 31, 2019 net cash provided by financing activities was $16.3 million which related to the proceeds of issuance of preferred stock.

During the nine months ended September 30, 2019 net cash provided by financing activities was $16.3 million which related to the proceeds of issuance of preferred stock.

During the nine months ended September 30, 2020 there was minimal net cash provided by financing activities related to the proceeds from exercises of stock options.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development for, initiate clinical trials for, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a

public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents as of December 31, 2020, will enable us to fund our operating expenses and capital expenditure requirements through . We have based this estimate on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of discovery, preclinical development, laboratory testing and clinical trials for other potential product candidates we may develop, if any;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we might have at such time;
- the costs and timing of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;
- the amount of revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;
- the costs of preparing, filing and prosecuting patent applications, obtaining, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the in-licensing or acquisition of assets in line with our strategy;
- our headcount growth and associated costs as we expand our business operations and our research and development activities; and
- the costs of operating as a public company.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interests may be diluted, and the terms of these securities may include liquidation or other preferences that could adversely affect your rights as a common stockholder. Any debt financing, if available, may involve agreements that include restrictive covenants that limit our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends, that could adversely impact our ability to conduct our business.

If we raise funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual Obligations

The following table summarizes our significant contractual obligations as of payment due date by period at December 31, 2019:

	Payments Due by Period (in thousands)				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Operating lease obligation(1)	$1,118	$ 1,118	$ —	$ —	$ —
Total	$1,118	$ 1,118	$ —	$ —	$ —

(1) Represents future minimum lease payments under our non-cancelable operating lease which expires in February 2021. The minimum lease payments above do not include any related common area maintenance charges, operating expenses or real estate taxes.

On July 21, 2020, we entered into an operating lease agreement for 20,752 square feet of office, lab and animal care facility space located in Boston, Massachusetts for our new corporate headquarters. The commencement date of the lease is estimated to be February 1, 2021 and the lease term is 63 months. The lease provides a three-month free rent period, which will commence on the lease commencement date. The base rent is $145 thousand a month and escalates by 3% annually.

We enter into contracts in the normal course of business with CROs and CMOs for clinical trials, preclinical research studies and testing, manufacturing and other services and products for operating purposes. These contracts do not contain any minimum purchase commitments and are cancelable by us upon prior notice of 30 days and, as a result, are not included in the table of contractual obligations above. Payments due upon cancelation consist only of payments for services provided and expenses incurred up to the date of cancelation.

We may incur potential contingent payments upon our achievement of clinical, regulatory and commercial milestones, as applicable, or that we may be required to make royalty payments under license agreements we have entered into with various entities pursuant to which we have in-licensed certain intellectual property such as our patent license agreement with the University of Texas at Austin and our license agreement with AskAt, Inc. Due to the uncertainty of the achievement and timing of the events requiring payment under these agreements, the amounts to be paid by us are not fixed or determinable at this time and have not been included in the table above.

Critical Accounting Policies and Use of Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities in our consolidated financial statements during the reporting periods. These items are monitored and analyzed by us for changes in facts and circumstances, and material changes in these estimates could occur in the future. We base our estimates on historical experience, known trends and events, and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in the notes to our consolidated financial statements appearing elsewhere in this prospectus, we believe the following accounting policies used in the preparation of our consolidated financial statements require the most significant judgments and estimates.

Revenue Recognition

As discussed in Note 2 to our consolidated audited financial statements appearing at the end of this prospectus, we adopted Accounting Standards Codification (ASC) 606, *Revenue from Contracts with Customers* ("ASC 606") as of January 1, 2018. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services.

To determine revenue recognition for arrangements that are within the scope of ASC 606, we perform the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) we satisfy a performance obligation. At contract inception, once the contract is determined to be within the scope of Topic 606, we assess the goods or services promised within each contract and determine those that are performance obligations, then assess whether each promised good or service is distinct. When we offer options for additional goods or services, such as to receive a license for intellectual property or for additional goods or services, we evaluate whether such options contain material rights that should be treated as additional performance obligations. Once performance obligations are identified, we then recognize as revenue the amount of the transaction price that the Company allocated to the respective performance obligation when (or as) each performance obligation is satisfied, either at a point in time or over time. If the performance obligation is satisfied over time, we recognize revenue based on the use of an input method.

At each reporting date, we calculate the measure of progress for the performance obligations transferred over time. The calculation generally uses an input measure based on costs incurred to-date relative to estimated total costs to complete the transfer of the performance obligation. The measurement of progress is then used to calculate the total revenue earned, including any cumulative catch-up adjustment.

We have two performance obligations in the BMS Collaboration Agreement, which are research and development services for IK-412 and for IK-175. We recognize revenue related to each of its performance obligations as the research and development services are performed. We recognize revenue related to research and development services performed using an input method by calculating costs incurred at each period end relative to total costs expected to be incurred.

Accrued Research and Development Expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing open contracts and purchase orders, communicating with our applicable personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual costs. The majority of our service providers invoice us in arrears for services performed, on a pre-determined schedule or when contractual milestones are met; however, some require advance payments. We make estimates of our accrued expenses as of each balance sheet date in the consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of these estimates with the service providers and make adjustments, if necessary. Examples of estimated accrued research and development expenses include fees paid to:

- vendors, including research laboratories, in connection with preclinical development activities;
- CROs and investigative sites in connection with preclinical studies; and
- CMOs in connection with drug substance and drug product formulation of preclinical studies.

We base the expense recorded related to external research and development on our estimates of the services received and efforts expended pursuant to quotes and contracts with multiple CMOs and CROs that supply,

conduct and manage nonclinical studies on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, we adjust the accrual or the amount of prepaid expenses accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in reporting amounts that are too high or too low in any particular period. To date, there have not been any material adjustments to our prior estimates of accrued research and development expenses.

Stock-Based Compensation

We apply the fair value recognition provisions of ASC 718, *Compensation—Stock Compensation*, or ASC 718, for stock-based awards granted to employees and directors for their services on the board of directors. Determining the amount of stock-based compensation to be recorded requires us to develop estimates of the fair value of stock options as of their grant date. We estimate the fair value of each stock option grant using the Black-Scholes option-pricing model. Calculating the fair value of stock-based awards requires that we make subjective assumptions.

Pursuant to ASC 718, we measure stock-based awards granted to employees and members of the board of directors at fair value on the date of grant and recognize the corresponding stock-based compensation expense of those awards on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. We have historically granted stock options with exercise prices equivalent to the fair value of our common stock as of the date of grant.

The Black-Scholes option-pricing model uses the following inputs: the fair value of our common stock, the expected volatility of our common stock, the expected term of our stock options, the risk-free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield. Due to the lack of a public market for our common stock and a lack of company-specific historical and implied volatility data, we have based our computation of expected volatility on the historical volatility of a representative group of public companies with similar characteristics to us, including stage of product development, life science industry focus, length of trading history and similar vesting provisions. The historical volatility data is calculated based on a period of time commensurate with the expected term assumption. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available or until circumstances change, such that the identified entities are no longer representative companies. In the latter case, more suitable, similar entities whose share prices are publicly available would be utilized in the calculation. We use the simplified method as prescribed by the SEC Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. Under this approach, the weighted-average expected option term is presumed to be the average of the contractual term (ten years) and the vesting term (generally four years) of our stock options. We utilize this method due to lack of historical exercise data and the "plain-vanilla" nature of our stock-based awards. The expected term is applied to the stock option grant group as a whole, as we do not expect substantially different exercise or post-vesting termination behavior among our employee population. For options granted to non-employees, we utilize the contractual term of the arrangement as the basis for the expected term assumption. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected term of the stock options. The expected dividend yield is assumed to be zero as we have never paid cash dividends and have no current plans to pay any cash dividends on our common stock. The fair value of each restricted common stock award is estimated on the date of grant based on the fair value of our common stock on that same date.

Determination of Fair Value of Common Stock

As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors as of the date of each option grant with input from management, considering our most recently available third-party valuations of common stock, and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation.

Under the probability-weighted expected return method, or PWERM, the value of an enterprise, and its underlying common securities, are estimated based on an analysis of future values for the enterprise, assuming various outcomes. The value of the common securities is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes and the rights of each class of equity. The future values of the common securities under the various outcomes are discounted back to the valuation date at an appropriate risk-adjusted discount rate and then probability weighted to determine the value for the common securities.

The option pricing method, or OPM, treats common securities and preferred securities as call options on the enterprise's equity value, with exercise prices based on the liquidation preferences of the preferred securities. Under this method, the common securities have value only if the funds available for distribution to shareholders exceed the value of the liquidation preferences at the time of a liquidity event. The Black-Scholes model is used to price the call option, and the model includes assumptions for the time to liquidity and the volatility of equity value.

The hybrid method is a hybrid between the PWERM and OPM, estimating the probability-weighted value across multiple scenarios but using the OPM to estimate the allocation of value within one or more of those scenarios.

Valuations performed in the year ended December 31, 2018 and 2019 and the nine months ended September 30, 2019 used the OPM, and the nine months ended September 30, 2020 used a hybrid of the PWERM and OPM when allocating our enterprise value to classes of securities.

When using the hybrid method, we assumed two scenarios: an IPO scenario and a remain private scenario. Both scenarios estimated an equity value based on the guideline public company method under the market approach. The guideline public companies considered for these scenarios consist of biopharmaceutical companies with recently completed initial public offerings. The IPO scenario assumed the conversion of our preferred shares to common stock. In the remain-private scenario, value was allocated using the OPM.

In the OPM, volatility is estimated based on the trading histories of selected guideline public companies. The relative probability of each scenario was determined based on an assessment of then-current market conditions and our expectations as to timing and prospects of an IPO.

The assumptions underlying these valuations were highly complex and subjective and represented management's best estimates, which involved inherent uncertainties and the application of management's judgment. As a result, if we had used significantly different assumptions or estimates, the fair value of our common stock and our stock-based compensation expense could be materially different.

Once a public trading market for our common stock has been established in connection with the completion of this offering, it will no longer be necessary for our board of directors to estimate the fair value of our common stock in connection with our accounting for granted stock options and other such awards we may grant, as the fair value of our common stock will be determined based on the quoted market price of our common stock.

Awards granted

The following table summarizes each equity award grant between January 1, 2018 through September 30, 2020:

Grant Date	Type of Award	Number of Common Shares	Exercise Price of Award per Share	Fair Value of Common Stock per Share on Grant Date	Per Share Estimated Fair Value of Award
January 24, 2018	Option	1,403,181	$ 0.41	$ 0.41	$ 0.26
February 15, 2018	Option	90,909	$ 0.41	$ 0.41	$ 0.26
February 20, 2018	Option	1,136,363	$ 0.41	$ 0.41	$ 0.26
May 10, 2018	Option	386,364	$ 0.41	$ 0.41	$ 0.26
August 9, 2018	Option	318,181	$ 0.41	$ 0.41	$ 0.26
December 18, 2018	Option	2,862,940	$ 0.30	$ 0.30	$ 0.61
March 20, 2019	Option	6,633,540	$ 0.58	$ 0.58	$ 0.36
May 16, 2019	Option	1,898,181	$ 0.58	$ 0.58	$ 0.37
July 11, 2019	Option	875,584	$ 0.58	$ 0.58	$ 0.35
October 18, 2019	Option	1,338,858	$ 0.58	$ 0.58	$ 0.35
December 6, 2019	Option	654,633	$ 0.63	$ 0.63	$ 0.38
May 6, 2020	Option	440,024	$ 0.63	$ 0.63	$ 0.41
July 23, 2020	Option	1,388,269	$ 0.63	$ 0.77	$ 0.52

At the time of grant of each of the stock options listed above, our board of directors determined that the values included under “Per share exercise price of awards” reasonably reflected the per share fair value of our common shares as of the grant dates. However, for certain dates, the fair value of the common shares at the date of these grants was adjusted to the amounts included under “Fair Value of Common Stock per Share on Grant Date” in connection with retrospective fair value assessments for financial reporting purposes. These reassessed values were based, in part, upon third-party valuations of our common stock prepared as of each grant date on a retrospective basis. The third-party valuations were prepared using the hybrid method and used market approaches to determine our enterprise value.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable SEC rules.

Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to changes in interest rates. As of December 31, 2018 and 2019, our cash equivalents consisted of interest-bearing checking accounts. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term nature and the low risk profile of our interest-bearing accounts, an immediate 10% change in interest rates would not have a material effect on the fair market value of our cash and cash equivalents or on our financial position or results of operations.

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates.

Inflation generally affects us by increasing our costs. We do not believe that inflation had a material effect on our business, financial condition or results of operations during the years ended December 31, 2018 and 2019, and the nine months ended September 30, 2019 and 2020.

Emerging Growth Company

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company," or an EGC, can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. Thus, an EGC can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to use the extended transition period for new or revised accounting standards during the period in which we remain an emerging growth company; however, we may adopt certain new or revised accounting standards early.

We will remain an emerging growth company until the earliest to occur of: (1) the last day of the fiscal year in which we have more than $1.07 billion in annual revenue; (2) the date we qualify as a "large accelerated filer," with at least $700.0 million of equity securities held by non-affiliates; (3) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period; and (4) the last day of the fiscal year ending after the fifth anniversary of our initial public offering.

BUSINESS

Overview

We are a targeted oncology company focused on developing novel cancer therapies targeting key signaling pathways that drive the formation and spread of cancer. Our programs focus on key cancer driver pathways that are well-validated in scientific literature but lack approved or effective therapies and therefore have the potential to address high unmet medical needs. By leveraging our deep understanding of discovery chemistry, translational science, and patient-centric drug development, we have built a deep pipeline of wholly owned and partnered programs focused on genetically defined or biomarker-driven cancers, which enables us to target specific patient populations that we believe are most likely to respond to treatment with our product candidates. Since we commenced operations in 2016, we have discovered or developed five oncology programs that include four product candidates in either IND-enabling studies or clinical development.

Our lead targeted oncology product candidate, IK-930, is an oral small molecule inhibitor of the transcriptional enhanced associate domain, or TEAD, transcription factor in the Hippo signaling pathway. The Hippo pathway is widely accepted as a key and prevalent driver of cancer pathogenesis and is genetically altered in approximately 10% of all cancers, and such genetic alterations are generally associated with poor clinical outcomes. We intend to pursue clinical development of IK-930 across a wide range of tumor types with known Hippo pathway mutations, and plan to focus our initial development efforts on indications that provide the potential for rapid clinical development to achieve proof-of-concept, such as mesothelioma and soft tissue sarcomas. We intend to submit an Investigational New Drug application, or IND, to the U.S. Food and Drug Administration, or FDA, for IK-930 in the second half of 2021.

For our second targeted oncology program, we have discovered and plan to develop oral small molecule inhibitors of extracellular signal-related kinase 5, or ERK5, a downstream enzyme in the RAS signaling pathway, which have the potential to bring therapeutic benefit to cancer patients with a mutation in the kirsten rat sarcoma, or KRAS, gene, which is an oncogene implicated in many cancers. We anticipate nominating a development candidate for the ERK5 program and initiating IND-enabling studies in the second half of 2021 with the goal of submitting an IND in the second half of 2022.

In addition to the programs described above, we have ongoing discovery programs in targeted oncology focused on the development of novel drug candidates that target key nodes within the RAS pathway, and expect to nominate the first development candidate resulting from these discovery programs in 2022.

In addition to our targeted oncology programs, we have three product candidates designed to modulate the tumor microenvironment in specific patient populations by leveraging biomarker-driven patient enrichment strategies. Two of these product candidates, IK-175 and IK-412, are partnered with Bristol-Myers Squibb Company, or BMS, which we believe validates our ability to advance internally developed product candidates into clinical development using biomarker-driven patient enrichment strategies. The programs are as follows:

- IK-175 is an oral inhibitor of aryl hydrocarbon receptor, or AHR. We are currently enrolling patients with bladder cancer with activated AHR in a dose expansion cohort of a Phase 1 clinical trial of IK-175 as a monotherapy. Additionally, we plan on assessing IK-175 in combination with nivolumab in patients with bladder cancer in the first half of 2021 in the Phase 1b portion of the clinical trial. The primary endpoint of this trial is safety and tolerability. We expect to complete enrollment in both treatment arms in the second half of 2022.
- IK-412 is an enzyme therapy designed to lower levels of immunosuppressive kynurenine in the tumor microenvironment. We are currently conducting IND-enabling studies of IK-412 and intend to submit an IND in the second half of 2021.
- Finally, we are evaluating IK-007, an oral antagonist of prostaglandin E2 receptor 4, or EP4, in a Phase 1b clinical trial in biomarker-enriched patients with microsatellite stable colorectal cancer, or MSS CRC, who express high levels of an EP4 pathway metabolite called PGE2 Metabolite, or PGEM. We expect to complete enrollment for the Phase 1b clinical trial in the second half of 2021.

Our current pipeline of discovery and clinical programs is shown below:

Program	Target	Lead Indication(s)	Stage	Next Milestone(s)	Product Rights
Targeted Oncology Programs					
IK-930	TEAD	Hippo-mutated cancers	IND-enabling	2H 2021: Submit IND	ikena ONCOLOGY
RAS Signaling	ERK5	KRAS-mutated cancers	Lead Optimization	2H 2021: Initiate IND-enabling studies 2H 2022: Submit IND	ikena ONCOLOGY
RAS Pathway	Multiple	Solid Tumors	Discovery	2022: Nominate Development Candidate	ikena ONCOLOGY
Tumor Microenvironment Programs					
IK-175	AHR	Biomarker enriched bladder cancer	Phase 1a (single agent)	1H 2021: Initiate Phase 1b combination arm 2H 2022: Complete Phase 1 enrollment	Bristol Myers Squibb [1]
IK-412	Kynurenine	Solid Tumors	IND-enabling	2H 2021: Submit IND	Bristol Myers Squibb [1]
IK-007 +pembro [2]	EP4	Biomarker enriched MSS CRC	Phase 1b	2H 2021: Complete Phase 1b enrollment	ikena ONCOLOGY [3]

[1] BMS has the right to exclusively license under a master collaboration agreement

[2] Pembrolizumab provided through a clinical trial collaboration and supply agreement with Merck.

[3] Ikena has a worldwide exclusive license except China and Taiwan from AskAt.

Our Leading Investors and Partners

As of December 31, 2020, we have raised over $160 million from leading life sciences investors and companies, including $120.0 million from our issuance of Series B preferred stock in December 2020 led by Omega Funds and including participation from Fidelity Management and Research Company, Surveyor Capital (a Citadel company), Invus, Farallon Capital Management, BVF Partners, L.P., Cowen Healthcare Investments, Logos Capital, and HealthCor Management. Existing investors Atlas Venture, OrbiMed and BMS all participated in the financing. In addition to the equity investments noted above, we received an aggregate of $80.5 million in January 2019 as part of our strategic collaboration with Celgene Corporation (now BMS). This collaboration covers two of our tumor microenvironment programs, an AHR antagonist (IK-175) and a recombinant human kynurenine-degrading enzyme (IK-412). If BMS elects to license each of our programs, we are entitled to an aggregate of $90.0 million in opt-in fees, and up to $265.0 million in regulatory milestones and $185.0 million in commercial milestones for each program as well as a tiered royalties at rates ranging from the high single to low teen percentages based on worldwide annual net sales.

Our Strategy

We are dedicated to bringing next generation targeted oncology therapies to cancer patients. We plan to achieve this goal by leveraging our deep understanding of complex biologic pathways and biomarker-driven discovery and clinical development. The key components of our strategy are as follows:

- **Advance IK-930 through clinical development.** We are developing IK-930, an oral small molecule inhibitor of TEAD to evaluate its potential to bring single agent therapeutic benefit to patients with tumors harboring genetic mutations in the Hippo signaling pathway. Our clinical development strategy is designed to achieve clinical proof-of-concept and to leverage the potential for fast-to-market opportunities in orphan indications, and to expand in broader indications through combination

treatments with other targeted therapies to address therapeutic resistance, such as with epidermal growth factor receptor, or EGFR, inhibitor. We are conducting IND-enabling studies of IK-930 and intend to submit an IND in the second half of 2021 and expect to begin a Phase 1 clinical trial shortly thereafter.

- **Expeditiously progress a development candidate for the RAS signaling program through clinical development.** We have discovered small molecule inhibitors of ERK5 in the RAS signaling pathway that we believe may have the potential to bring therapeutic benefit to patients with KRAS mutant cancers, which have a high unmet medical need. We plan to pursue clinical development of oral ERK5 inhibitors both as single agent in KRAS mutated pancreatic and lung cancer and in combination with other targeted therapies to address resistance to mitogen-activated protein kinase, or MEK, inhibitors. We anticipate nominating a development candidate and initiating IND-enabling studies in the second half of 2021 and anticipate submitting an IND in the second half of 2022.
- **Deepen our pipeline of biomarker-driven targeted oncology programs.** We are currently pursuing discovery-stage programs against targets that are key drivers of cancer progression and in indications with high unmet medical need, in addition to TEAD and ERK5, in particular in the RAS pathway. In addition to internally identified targets, we plan to opportunistically in-license or acquire discovery and clinical programs for which we can leverage our expertise in drug discovery and structural biology-guided chemistry, with a focus on mechanisms of actions targeting cancer drivers that complement our existing targeted oncology programs.
- **Maximize the value of our pipeline by retaining commercial rights to our targeted oncology programs.** As we seek to expand our targeted oncology pipeline and advance it through proof-of-concept clinical trials, we plan to build a fully integrated, biotechnology company. We hold worldwide development and commercial rights to our targeted oncology programs, and we intend to continue to develop our capabilities in late stage clinical development and commercialization to maximize the potential value of these programs. Given that our targeted oncology programs have broad applicability, we may also opportunistically enter into strategic partnerships to maximize the value potential, as well as clinical and commercial impact of our overall pipeline.
- **Develop IK-175 and IK-412, our BMS-partnered programs, through Phase 1b clinical trials and achieve key near-term financial milestones**. BMS, our strategic partner, has the exclusive right to license each of IK-175 and IK-412 worldwide through completion of the Phase 1b clinical trials. If BMS exercises both licenses, we would receive $90 million in opt-in fees, which would provide a meaningful source of non-dilutive capital. We would have the right to receive clinical, regulatory and commercial milestone payments and royalties on worldwide net sales. We are currently conducting a dose expansion cohort of the open-label Phase 1 clinical trial of IK-175 in bladder cancer patients with activated AHR enriched with an AHR biomarker using our proprietary assay. For IK-175, we anticipate initiating the Phase 1b combination arm with nivolumab in patients with bladder cancer in the first half of 2021 and completing enrollment in both treatment arms in the second half of 2022. For IK-412, we intend to submit an IND in the second half of 2021.

Our Research & Development Expertise

We employ a patient-centric R&D approach across discovery chemistry and biology, translational science and clinical development for our targeted oncology and tumor microenvironment therapies. Using this approach, we have discovered or developed five oncology programs that include four product candidates since we commenced operations in 2016: two of which are currently in clinical development, two of which are in IND-enabling studies and one program in discovery.

We select new programs based on two key strategic principles:

- Cancer driver targets must have a compelling biological rationale, including:
  - Tumor intrinsic changes such as mutations, gene fusions, and gene amplifications; and

  - Strong clinical rationale with the potential to develop a first-in-class or best-in-class therapeutic.
- Alignment with a translational path in disease indications with high unmet medical need, including:
  - No currently approved therapies, or patient populations that are underserved by current treatments; and
  - A biomarker-driven proof-of-concept clinical development plan.

We pursue the discovery and development of small molecule modulators of targets in any target classes that meet these key strategic principles. To date, we have pursued programs and product candidates against transcription factors, kinases, receptors and tumor microenvironment metabolites.

We believe our expertise, capabilities and experience in discovering small molecules using structural biology-guided chemistry and *in vivo* systems to optimize pharmaceutical properties to rigorously select the best molecules, is key to our progress to date. In parallel to selecting lead small molecules, we are generating translational insights and discovering biomarkers to select patients who we believe may be most likely to benefit. We take a holistic view of the entire R&D process to design a focused clinical strategy to maximize the probability of success for each program, integrating collective knowledge of discovery and translational science, in order to select what we believe are the most relevant tumor types and the patients who may benefit the most.

Early in the R&D process, we identify biomarkers to support which tumor types we may pursue in the clinic and to help determine which patients with the selected tumor types may be better suited for our therapies. Because our pipeline has been focused on programs where there are no approved product candidates, we have had to discover novel biomarkers internally to enable indication and patient selection strategies, as well as develop new assays to measure these biomarkers in the clinic. We are currently using these biomarkers across our pipeline using techniques and assays such as LC-MS/MS for metabolites analysis, RNASeq for gene signature, immunohistochemistry, or IHC, next generation sequencing, or NGS, and chemokine/cytokine profiling. For example:

- For TEAD, we plan on using NGS to select patients with genetic alterations in the Hippo signaling pathway, such as Neurofibromatosis 2, or NF2, loss and/or YAP1 and TAZ gene fusions.
- For IK-175, we are currently enrolling bladder cancer patients selected for a new IHC biomarker we developed that measures activated AHR. We are also using an internally discovered AHR-activated gene transcription signature, measured by RNASeq, to inform indication selection.
- For IK-007, we identified PGEM as a biomarker that we believe correlates with clinical benefit. We then generated a validated LC-MS/MS assay to enable prospective patient enrollment in our ongoing clinical study.

Members of our R&D leadership and executive teams bring 23 years of experience on average and have contributed to over 50 INDs and 14 regulatory approvals throughout their careers at both biotech and pharma companies. In addition, we have recently formed a multidisciplinary scientific advisory board, or SAB, that will bring extensive strategic, clinical, translational and drug development expertise. Our SAB members include George Demetri, M.D., (Chair) Director of the Ludwig Center at Dana-Farber/Harvard Cancer Center, Kevan Shokat, Ph.D., Professor and Vice-Chair, Department of Cellular and Molecular Pharmacology at the University of California San Francisco, and Josep Tabernero, M.D., Ph.D., Head of the Medical Oncology Department at the Vall d'Hebron Barcelona Hospital and Director of the Vall d'Hebron Institute of Oncology.

We are continuing to execute our patient-centric R&D approach as planned and we are currently working on a number of early stage discovery programs in the targeted oncology space. Moreover, we are developing a preclinical-stage gut-preferred AHR agonist program for treatment of inflammatory bowel disease, or IBD, including in patients who have caspase recruitment domain-containing protein 9, or CARD9, polymorphisms. We plan on exploring a partnership for this non-core program in the second half of 2021.

Our Programs

Targeted Oncology Programs

IK-930, a TEAD inhibitor

IK-930 is an internally discovered oral small molecule inhibitor of the TEAD family of transcription factors in the Hippo signaling pathway that is undergoing IND-enabling studies. TEAD functions as the ultimate step in the Hippo signal transduction pathway by driving expression of genes involved in cell proliferation and survival. The Hippo pathway is widely accepted as a key and prevalent driver of cancer pathogenesis and is genetically altered in approximately 10% of all cancers, and such genetic alterations are often associated with poor clinical outcomes.

IK-930 is a novel inhibitor of TEAD that exploits a recently discovered and promising binding pocket on TEAD to enable the inhibitory effect upon the Hippo pathway. TEAD activity is dependent on binding of the fatty acid palmitate to a central lipid pocket. IK-930 blocks palmitate from binding TEAD, thereby disrupting TEAD-dependent gene transcription. The mechanism of action of IK-930 is differentiated from historically unsuccessful attempts that targeted protein-to-protein interactions, or PPIs, using either small molecules or cyclic peptides. Using structural biology-guided chemistry, we were able to generate novel TEAD inhibitor compounds across several chemical series directed to this binding pocket in TEAD and profile them using various *in vitro* and *in vivo* assays assessing potency, selectivity, tolerability and activity. By selecting IK-930 based upon these characteristics, we believe IK-930 has the potential to bring therapeutic benefit to patients with tumors harboring genetic mutations in the Hippo signaling pathway. Moreover, activation of the Hippo pathway confers resistance to certain targeted therapies, such as EGFR inhibitors and MEK inhibitors, which supports the potential for IK-930 to be combined with these therapies to overcome therapeutic resistance.

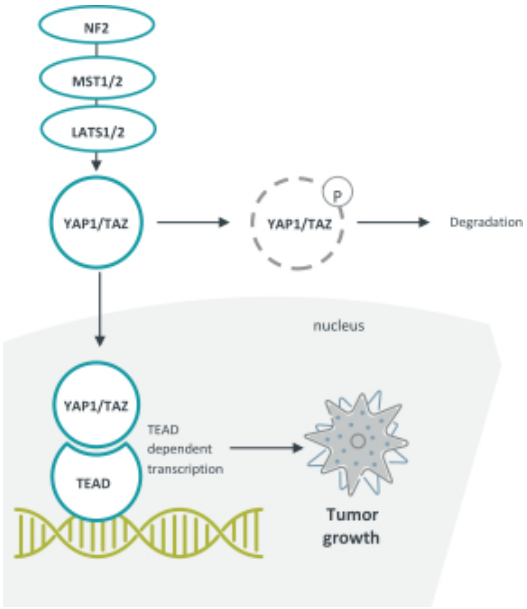
We are conducting IND-enabling studies of IK-930 and intend to submit an IND in the second half of 2021 and expect to begin a Phase 1 clinical trial shortly thereafter. In our Phase 1 clinical trial, we expect to evaluate the safety of IK-930 as a monotherapy in orphan Hippo-mutated cancers in order to establish proof-of-concept, and in combination with other targeted agents, with the aim of potentially addressing therapeutic resistance in more prevalent tumor indications characterized by genetic alterations, including EGFR.

Role of the Hippo pathway and TEAD in oncology

The Hippo pathway is a highly conserved developmental signaling pathway that modulates the regulation of multiple biological processes including cell proliferation, survival, differentiation, organ size, and tissue homeostasis. Dysregulation of the Hippo pathway is associated with the induction of hyperproliferation, cellular invasion, metastasis, cancer cell maintenance and therapeutic resistance and has been linked to other pro-tumorigenic activities such as activation of regulatory T cells.

The Hippo signaling cascade begins with NF2, a gene that encodes the scaffold protein merlin, which links multiple extracellular cues to an intracellular signaling cascade. Merlin activates the kinases MST1 and MST2, or MST1/2, which subsequently phosphorylate and activate the kinases LATS1 and LATS2, or LATS1/2. LATS1/2 phosphorylates two key transcriptional coactivators of TEAD: YAP1 and TAZ. When phosphorylated, YAP1 and TAZ are sequestered to the cytoplasm where they are targeted for proteasome-mediated degradation. When the upstream portion of the signaling cascade is inactivated through normal regulation or through inactivating mutations, YAP1 and TAZ are not phosphorylated and can shuttle into the nucleus. Once inside the nucleus, YAP1 and TAZ bind TEAD to enable the transcription of TEAD target genes.

Schematic diagram of the Hippo pathway



Beyond the role of certain Hippo pathway alterations in driving cancer, several pathway components are known to drive resistance to targeted therapies such as EGFR inhibitors. Published data from patient tumor samples shows that, upon acquired resistance to EGFR inhibitors through specific mutations in EGFR, there is an increase in nuclear YAP1 in tumors as compared to baseline. In EGFR mutant lung cancer cell lines *in vitro*, the increase in nuclear YAP1 was observed to lead to increased TEAD activity as measured by higher levels of TEAD gene transcription. These data suggest that the addition of a TEAD inhibitor to an EGFR inhibitor regimen in patients with EGFR resistant tumors may be able to overcome therapeutic resistance to EGFR inhibition.

We believe that blocking TEAD-mediated cell proliferation through direct TEAD inhibition could be an important therapeutic intervention for patients with Hippo pathway mutations.

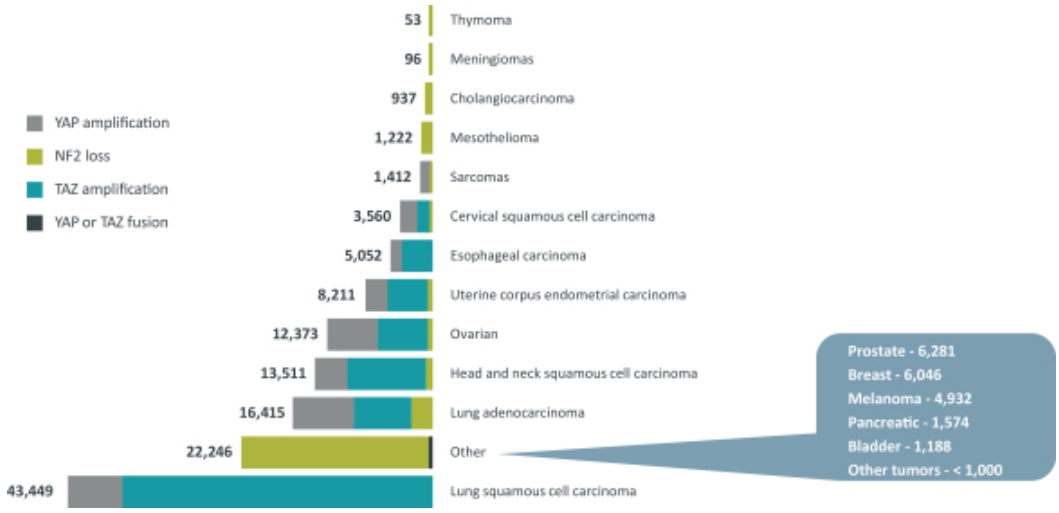
Epidemiology of Hippo pathway driven cancers

Published literature suggests that approximately 10% of all cancers have dysregulation of the Hippo pathway and subsequent activation of TEAD. Dysregulation can occur at multiple nodes within the pathway. For example, NF2 can undergo inactivating mutations and YAP1 and TAZ can undergo gene amplification. These genetic alterations lead to tumor formation in mouse models and therefore are believed to be genetic drivers of cancer. Moreover, there is cross-talk between the Hippo pathway and multiple other signal transduction pathways, such as EGFR, which can lead to aberrant TEAD activation.

We estimate that approximately 125,000 newly diagnosed cancer patients annually within the United States have tumors which harbor genetic alterations in the Hippo pathway, based on the incidence of cancers with YAP1 and TAZ gene amplification or fusion as well as NF2 loss.

The figure below illustrates the incidence of individuals with newly diagnosed cancers that harbor Hippo pathway genetic alterations in the United States on an annual basis.

Incidence of Hippo pathway genetic alterations



Genetic alterations in the Hippo pathway are present in diverse cancer types but there are certain cancers, including more prevalent indications such as lung squamous cell carcinoma, and rarer indications such as mesothelioma and sarcoma, which are reported to have a particularly high incidence of genetic alterations in the Hippo pathway and where alterations are considered to drive tumor formation and growth and are associated with a poor patient prognosis:

- The Hippo pathway is one of the most dysregulated signal transduction pathway in cancer. Loss of function mutations in NF2 are found in approximately 40% of cases of malignant mesothelioma and are associated with poor prognosis, including a significantly shorter progression free survival and overall survival.
- Multiple soft tissue sarcomas have YAP1 and TAZ gene fusions. For example, approximately 90% of epithelioid hemangioendothelioma, or EHE, have TAZ-CAMTA1 fusions and the remaining 10% have YAP1-TFE3 fusions, which are directly linked to the etiology of these cancers.
- In squamous lung cancer, YAP1 and TAZ amplifications are found in approximately 6% and 29%, respectively, based on internal analysis of The Cancer Genome Atlas (TCGA) using the Genome Data Commons and cBioportal tools.

Beyond the role of certain Hippo pathway alterations in driving cancer, several pathway components are known to drive resistance to targeted therapies such as EGFR inhibitors. Approximately 30% of patients with non-small-cell lung carcinoma, or NSCLC, will have EGFR mutations. Tagrisso (osimertinib) is an EGFR inhibitor approved for the first-line treatment of patients with NSCLC whose tumors have certain EGFR mutations. Despite the robust clinical activity exerted by osimertinib, patients often develop resistance to this treatment, which poses a significant challenge due to the scarcity of post-osimertinib pharmacological options available to date. Early use of osimertinib raises the question of the optimal management of osimertinib resistance and the role of targeted agent combinations in this patient population. We believe this population also represents a substantial opportunity for TEAD inhibitors. Published data from patient tumor samples shows that, upon acquired resistance to EGFR inhibitors through specific mutations in EGFR, there is an increase in nuclear YAP1 in tumors as compared to baseline. In EGFR mutant lung cancer cell lines *in vitro*, the increase in nuclear YAP1 was observed to lead to increased TEAD activity as measured by higher levels of TEAD gene transcription. These data suggest that the addition of a TEAD inhibitor to an EGFR inhibitor regimen in patients with EGFR

resistant tumors may be able to overcome therapeutic resistance to EGFR inhibition. We have generated preclinical data supporting our belief of the clinical opportunity to treat EGFR resistant patients with IK-930.

Disease Overview

The epidemiology findings in mesothelioma, EHE, soft tissue sarcomas as well as other solid tumors including menangioma point to the critical role of the Hippo pathway in tumor formation. In addition to the strong biological rationale for pursuing development of IK-930 in these cancers, we believe that these are areas of high unmet medical need in which IK-930 has the potential to provide meaningful clinical benefit to patients.

- Malignant mesothelioma is a rare cancer in the tissue lining the lungs, and is a very aggressive cancer with a poor prognosis. After initial diagnosis, patients are reported to have a median life expectancy of 15 months. Approximately 3,000 people in the United States are diagnosed with mesothelioma each year. On average, about 2,500 mesothelioma-related deaths occur in the United States each year. There are few effective treatment options for advanced unresectable malignant mesothelioma and to date only two treatment have been approved by the FDA for the treatment of this condition. The combination of cisplatin and pemetrexed was the first systemic treatment approved by the FDA in 2004, followed only by the May 2020 FDA approval of Nivolumab in combination with ipilimumab. Even with this newly approved treatment, the median overall survival of these patients is 18 months, with most of the patients eventually progressing and dying from their disease. Approximately 40% of malignant mesothelioma patients are associated to NF2 deficiency and this genetic alteration has been described to contribute to asbestos-induced mesotheliomagenesis in animal models, showing that NF2 drives the malignant behavior of this subset of mesothelioma cases.
- In addition to mesothelioma, menangioma also has high frequency of NF2 deficiency. Menangioma is the most common central nervous system, or CNS, tumor, accounting for approximately one-third of primary CNS tumors. Surgery and/or radiation therapy, or RT, constitute the initial therapeutic approach for meningiomas. Furthermore, surgery and/or RT can control disease in some patients with recurrence. Unfortunately, despite the appropriate use of surgery and RT for initial disease management and management of recurrent disease, there is a subset of patients in whom disease cannot be controlled with local approaches. Experience with systemic treatments is limited and although several agents have been studied, none have an established role in prolonging progression-free survival or overall survival. The outcome of this subset of patients with persistent or recurrent meningiomas continue to be poor, underscoring the substantial need for new therapies.
- Soft Tissue Sarcomas, or STS, represent a rare and heterogeneous group of solid tumors derived from mesenchymal progenitor cells and characterized by a variety of genetic alterations. Recent molecular and genetic studies in large cohorts of STS cases have demonstrated an essential role of YAP1/TAZ in sarcomagenesis, implying that a YAP1/TAZ directed therapeutic approach could represent a rational strategy in a selected subgroup of these tumors. STS account for 1% of all adult malignancies. While the clinical outcome of these diseases has improved in the last decade with the use of anthracycline-based chemotherapy and the introduction of novel therapies targeting different cell pathways and the use of immune checkpoints, the prognosis for a significant subgroup of patients with STS is still poor and there is an unmet medical need for these patients. For these reasons, the identification of novel molecular targets is important in these rare malignancies. Recent studies in a large cohort of STS tumors showed that myxoid liposarcomas, synovial sarcomas and angiosarcomas, in addition to EHE, expressed the highest levels of YAP1/TAZ gene expression, potentially driving tumorigenesis in these subsets of STS.
- EHE is a rare STS that grows from the cells that make up the lining of blood vessels with an incidence of one case per million people. This cancer can occur anywhere in the body with the most common sites being the liver, lungs, and bone. It usually occurs in people between 30 and 50 years of age but can occur in young children and older people. Surgery and radiotherapy have been used as treatment for localized disease and several interventions have been used with palliative intent in the recurrent or

metastatic cases, including steroids, interferon, and others, but there is currently no specific targeted therapy approved for the treatment of EHE.

- Despite the successful expansion of personalized oncology using targeted therapies to selectively treat patients with specific mutations in key oncogenic drivers, intrinsic and acquired resistance to targeted agents is a growing clinical problem. Activation of YAP1/TAZ has been associated with the development of resistance to various targeted agents, including in EGFR mutant NSCLC, and in KRAS mutant tumors such as pancreatic carcinoma, CRC, and NSCLC. In EGFR mutant NSCLC, the successful development of anti-EGFR inhibitors has improved the clinical outcome for these patients in not only advanced but also early disease and has become a new therapeutic paradigm for this patient population. However, the most efficient approach to managing emerging resistance to EGFR inhibitors remains to be determined.

Our Solution, IK-930

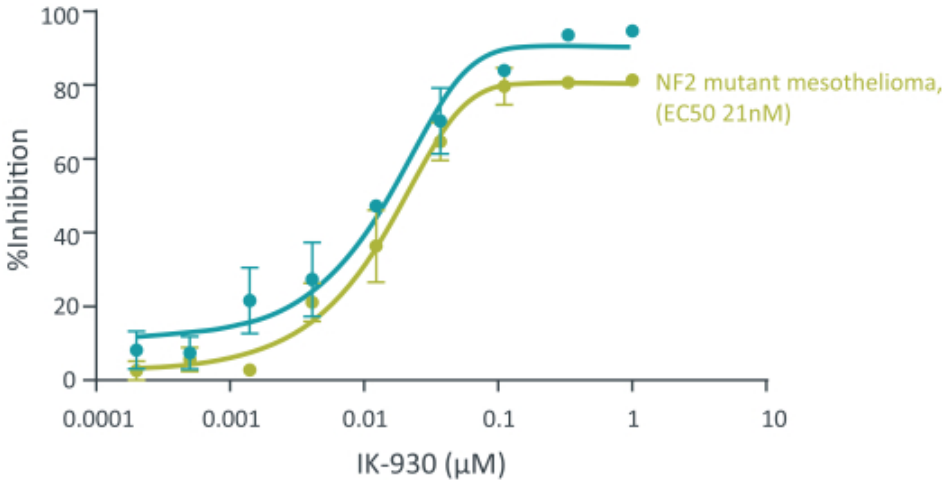
IK-930 is an oral small molecule inhibitor of TEAD that binds to a recently discovered lipid binding pocket on TEAD itself. TEAD activity is dependent on binding of the fatty acid palmitate to a central lipid pocket. IK-930 blocks palmitate from binding TEAD, thereby disrupting TEAD-dependent gene transcription. The mechanism of action of IK-930 is differentiated from historically unsuccessful attempts that targeted PPIs using either small molecules or cyclic peptides. It is often difficult to discover compounds that disrupt PPIs with sufficient potency due to the typically undruggable shallow PPI pockets and large surface areas that make up tight PPIs. We believe that targeting the lipid binding pocket of TEAD has the potential to yield more potent and selective molecules as compared to these historical attempts. Using structural biology-guided chemistry, we were able to generate novel TEAD inhibitor compounds across several chemical series directed to this binding pocket in TEAD and profile them using various *in vitro* and *in vivo* assays assessing potency, selectivity, tolerability and activity. We are currently conducting IND-enabling studies and we intend to submit an IND in the second half of 2021.

We believe that IK-930 compares favorably to other TEAD inhibitors in development based on publicly available information. Moreover, we believe we are well positioned given our ongoing translational work, the planned breadth of our strategy for clinical development and ability to prospectively enrich programs to select patients most likely to benefit from IK-930 using our biomarkers.

We have generated preclinical data supporting our belief of the clinical opportunity to treat EGFR resistant patients with IK-930. Based on our preclinical studies, we believe IK-930 is a potent, well tolerated and selective TEAD inhibitor with favorable pharmacologic properties. In a TEAD reporter cell line, IK-930 inhibited TEAD-dependent transcription with an EC_{50} of 25 nM, and inhibited proliferation of H226 cells, an NF2 mutant mesothelioma cell line, with an EC_{50} of 21 nM, demonstrating that IK-930 has high potency in inhibiting activated Hippo signaling in cultured cancer cells.

The figure below illustrates the inhibition of TEAD by IK-930.

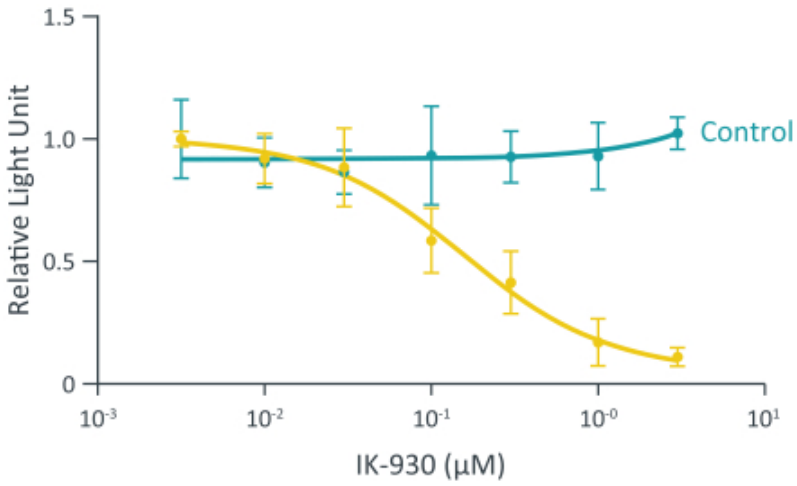
Inhibition of TEAD by IK-930 blocks TEAD-dependent transcription and proliferation in H226 cells containing an NF2 mutation



The ability of IK-930 to selectively inhibit proliferation in Hippo pathway mutated cells was demonstrated in the H28 mesothelioma cell line which does not have any Hippo pathway mutations. This cell line is insensitive to IK-930. However, knockdown of NF2 using CAS9-CRISPR converts H28 into an IK-930 sensitive tumor.

The figure below illustrates IK-930 blocking the proliferation of cells with NF2 loss but not in cells with normal NF2.

IK-930 blocks proliferation in cells with NF2 loss but not in cells with normal NF2



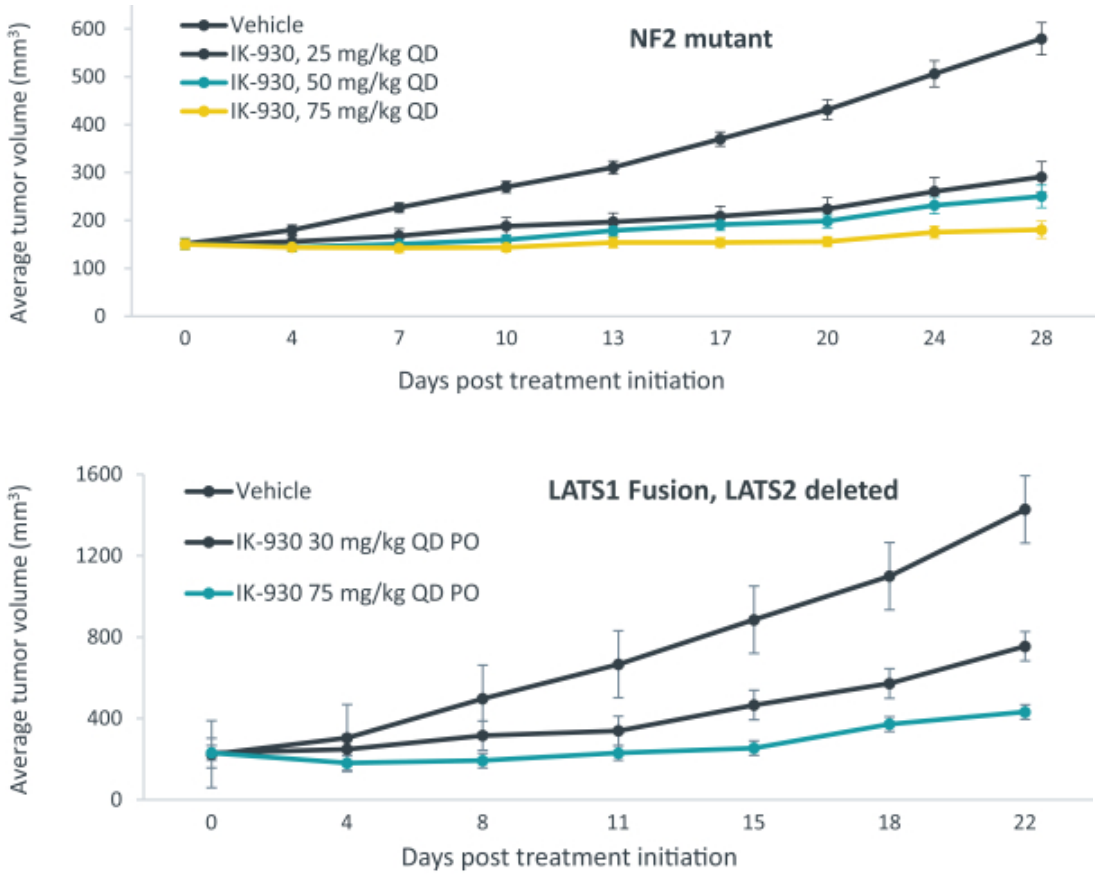
We also observed that IK-930 was significantly selective for TEAD as assessed in these cell-based assays relative to a safety panel of 45 receptors, enzymes and ion channels, a human ether-a-go-go related gene, or hERG, assay and a panel of Cytochrome P450, or CYP, inhibition assays.

We observed favorable PK/PD of IK-930 in preclinical studies. We observed that IK-930 exhibited antitumor activity in preclinical tumor models with Hippo pathway mutations. IK-930 dosed in a H226 NF2 mutant mouse

xenograft model led to antitumor activity throughout the treatment period. We observed similar activity in a xenograft model using a LATS1 fusion/LATS2 deleted tumor model. IK-930 dosed in NF2 mutant and LATS1 fusion/LAT2 deleted mouse xenograft models led to tumor growth inhibition compared to vehicle.

The figures below illustrate the antitumor activity of IK-930 in Hippo mutant xenograft models.

Antitumor activity of IK-930 in Hippo mutant xenograft models



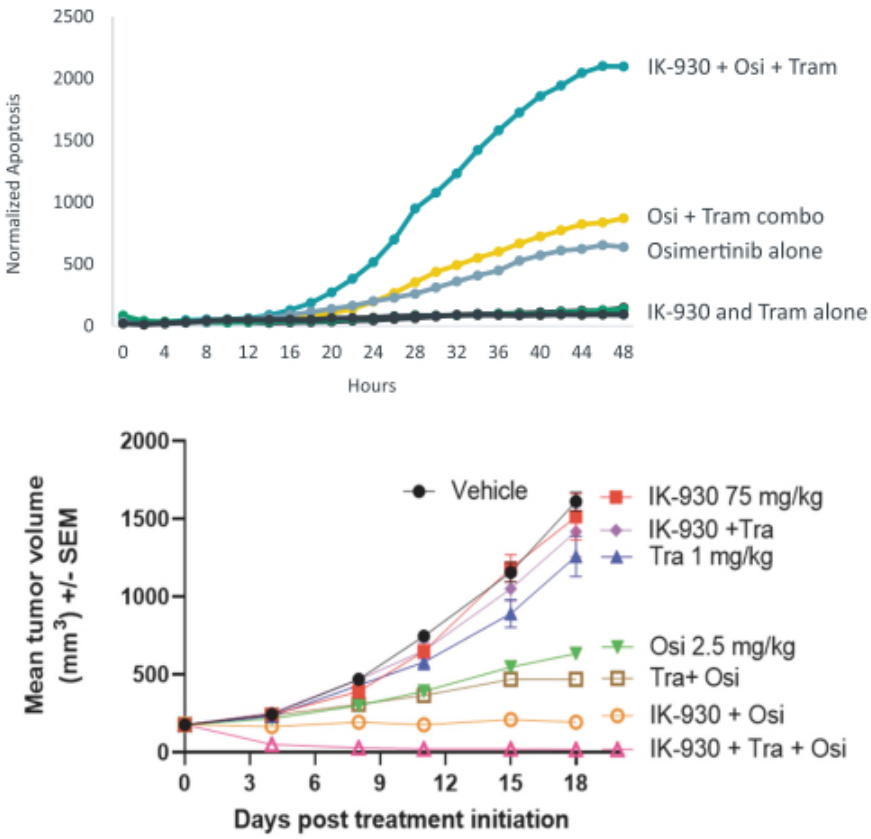
In addition to potential for single agent activity in tumors with genetic alterations in the Hippo pathway, we believe there is an opportunity for IK-930 to be beneficial in combination with other targeted therapies in the therapeutic resistance setting. For example, YAP1 activation (nuclear localization) has been shown to drive resistance to EGFR targeted therapies. NSCLC patients who develop resistance to EGFR inhibitors have higher levels of nuclear YAP expression in their tumors compared to baseline.

We have generated robust preclinical data supporting our confidence in the clinical opportunity to treat EGFR resistant patients with IK-930. We observed *in vitro* that inhibitors of EGFR (osimertinib) promote YAP1 nuclear localization in EGFR mutant NSCLC cells. Moreover, we observed that IK-930 is able to kill EGFR resistant lung cancer cells *in vitro* in combination with osimertinib. We observed increased apoptosis *in vitro* and activity *in vivo* of IK-930 combined with EGFR inhibition. In the H1975 EGFR mutant lung cancer xenograft mouse model, we observed meaningful tumor growth inhibition in the group treated with IK-930 in combination with osimertinib, as well as complete regressions in the group treated with IK-930 in combination with osimertinib

and trametinib, a MEK inhibitor, supporting that shutting down the mitogen-activated protein kinase, or MAPK, survival pathway further leads to antitumor activity.

The figure below illustrates *in vitro* (top) and *in vivo* (bottom) models of IK-930 in EGFR resistant lung cancer.

IK-930 in EGFR resistant lung cancer



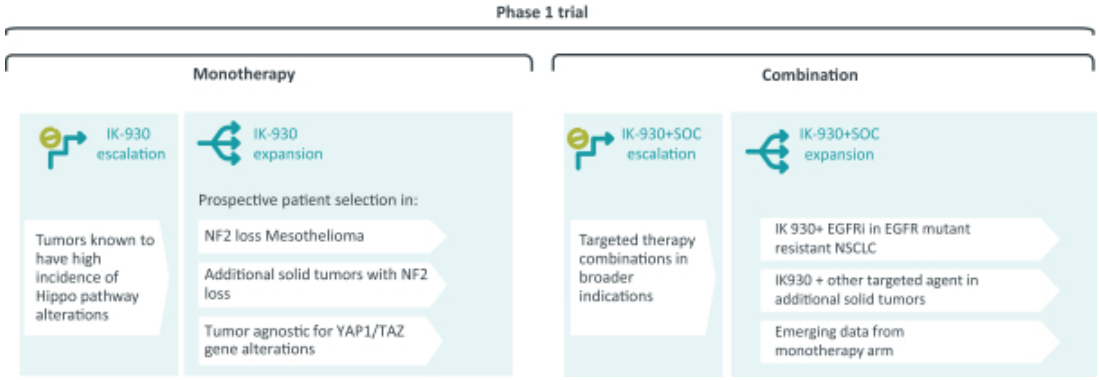
IK-930 clinical development strategy

Given the broad role of the Hippo signaling pathway on tumor biology and cancer progression, we plan to focus development of IK-930 on biomarker selected patient populations based on NF2 loss, and/or YAP1 and TAZ gene fusion or gene amplification in patients with solid tumors. We plan to utilize a comprehensive clinical development strategy focused on genetically defined patient populations targeting indications of high unmet medical need, which includes the following components:

- Assessing potential in rapid proof-of-concept and fast-to-market opportunities of IK-930 monotherapy for patients with genetic alterations in the Hippo pathway; and
- Expanding our clinical development plan into combinations with other targeted therapies as well as larger indications.

We expect that our Phase 1 clinical trial(s) of IK-930 will explore IK-930 as a monotherapy and in combinations with other targeted therapies. In the monotherapy arm of the trial, we plan to evaluate the safety and activity of IK-930 in rare and orphan tumors associated with specific genetic alterations such as NF2 loss. As illustrated in the figure below, in the dose escalation part of the monotherapy arm, we plan to enroll patients with tumors known to have high incidence of Hippo pathway alterations to determine the maximum tolerated dose and the recommended Phase 2 dose. In the dose expansion cohort, we plan to select patients prospectively based on specific Hippo genetic alterations such as NF2 loss and/or YAP1 and TAZ gene fusion.

Rapid clinical POC/Fast-to-Market opportunities with IK-930 as single agent with planned expansion into combinations for broader indications



In the combination arm of the Phase 1 clinical trial, we plan to explore indications based on emerging efficacy data from the monotherapy arm, as well as genetically defined tumors with known mechanisms of therapeutic resistance where IK-930 may be able to overcome resistance to targeted therapies, such as EGFR resistant NSCLC, and potentially improve effectiveness of targeted therapies.

ERK5 inhibitor / RAS signaling pathway inhibitor program

We are developing a novel small molecule inhibitor program of ERK5 in the RAS signaling pathway with potential for treating patients with KRAS mutant tumors. We anticipate nominating a development candidate and initiating IND-enabling studies in the second half of 2021 and plan to submit an IND in the second half of 2022. We believe that ERK5 provides an opportunity to address unmet medical need in the RAS pathway by modulating a key target that is downstream of RAS and therefore applicable to cancers with a broad range of KRAS mutations such as G12C, G12D, G12V, and G13. We believe that positive clinical data for KRAS G12C inhibitors currently in clinical development provide support for modulating targets in the KRAS pathway, including potentially G12D, G12V, G13 and others that are not being addressed by current product candidates or approved therapies. We believe that ERK5 inhibition represents a differentiated approach to address mutations in the KRAS pathway more broadly, with potential to demonstrate both monotherapy activity, as well as potentially broader and more durable activity in combination other targeted agents.

In preclinical studies, we observed fewer tumors in genetically engineered KRAS mutant lung and pancreatic cancer mouse models where ERK5 was knocked out, compared to wildtype control. Small molecule inhibition of the target using an ERK5 inhibitor tool compound with suboptimal pharmacokinetics blocked tumor growth in patient-derived KRAS mutated xenograft models.

We believe that inhibition of ERK5 has potential as a monotherapy in cancers with specific genetic alterations, including KRAS. In studies using a KRAS primary human tumor model of lung and pancreatic cancer, we observed synergistic effects on tumor inhibition by combining this inhibitor tool compound of ERK5 and a MEK

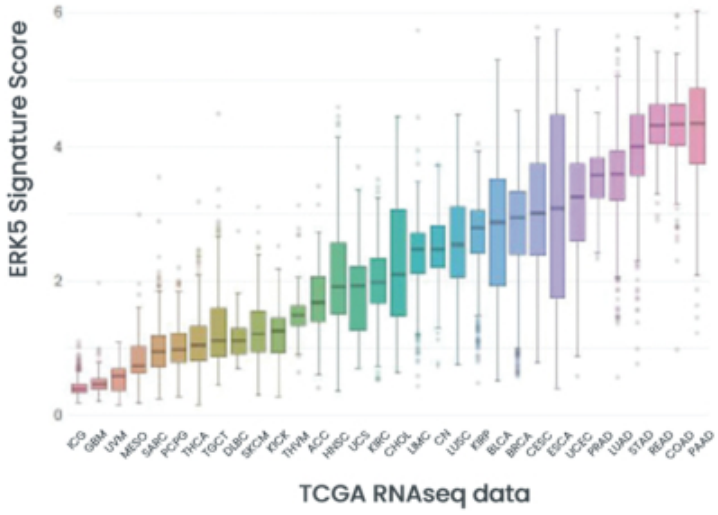
inhibitor and therefore we believe there is an opportunity to pursue development of our ERK5 inhibitor in combination with other targeted therapies such as MEK inhibitors to overcome or delay therapeutic resistance to those therapies and thereby improve the effectiveness of these therapies. We are not aware of other ERK5 inhibitors in development.

ERK5 Rationale

ERK5 is a member of the MAPK family. It is composed of an N-terminal kinase domain and a C-terminal tail responsible for sub-cellular localization and transcriptional activation. ERK5 can be activated in response to a range of mitogenic stimuli such as growth factors, G protein-coupled receptor agonists, cytokines and cellular stresses (e.g., hypoxia, shear stress). Through the MAPK signaling cascade, mitogen-activated protein kinase 5, or MEK5 activates ERK5 by phosphorylating the N-terminal domain, thereby enabling ERK5 kinase activity. ERK5 is an important mediator of tumorigenesis and metastatic progression, and a fundamental component of drug resistance in cancer.

As shown in the figure below, we observed an association between activated ERK5, as measured by an internally discovered ERK5 gene expression signature, and cancer types with high incidence of KRAS mutations, including pancreatic cancer (abbreviated PAAD in figure below), lung cancer (abbreviated LUAD in figure below) and CRC (abbreviated COAD in figure below).

ERK5 gene expression signature is highest in cancers with high incidence of KRAS mutations



In our preclinical KRAS mutant tumor models of lung and pancreatic cancer, we observed that knocking out the target blocked tumor formation. For example, in a transgenic lung tumor model driven by KRAS G12D and p53 loss, in the absence of the ERK5 gene, three of six mice formed one to two tumor lesions over an 80-day period, while over 100 tumor lesions were observed in the lungs of mice that retained the ERK5 gene over the same 80-day period. In addition, we observed that, in the absence of the ERK5 gene in this model, survival of these mice was improved. Moreover, in the same transgenic lung tumor model in which the MEK5 enzyme responsible for activating ERK5 was itself activated (MEK 5 DD), a large number of tumor lesions formed and the survival of the mice was greatly reduced. These data, as illustrated in the figures below, suggest that ERK5 is an essential component to transduce signals in the RAS pathway and we believe validate its key role in cancer formation.

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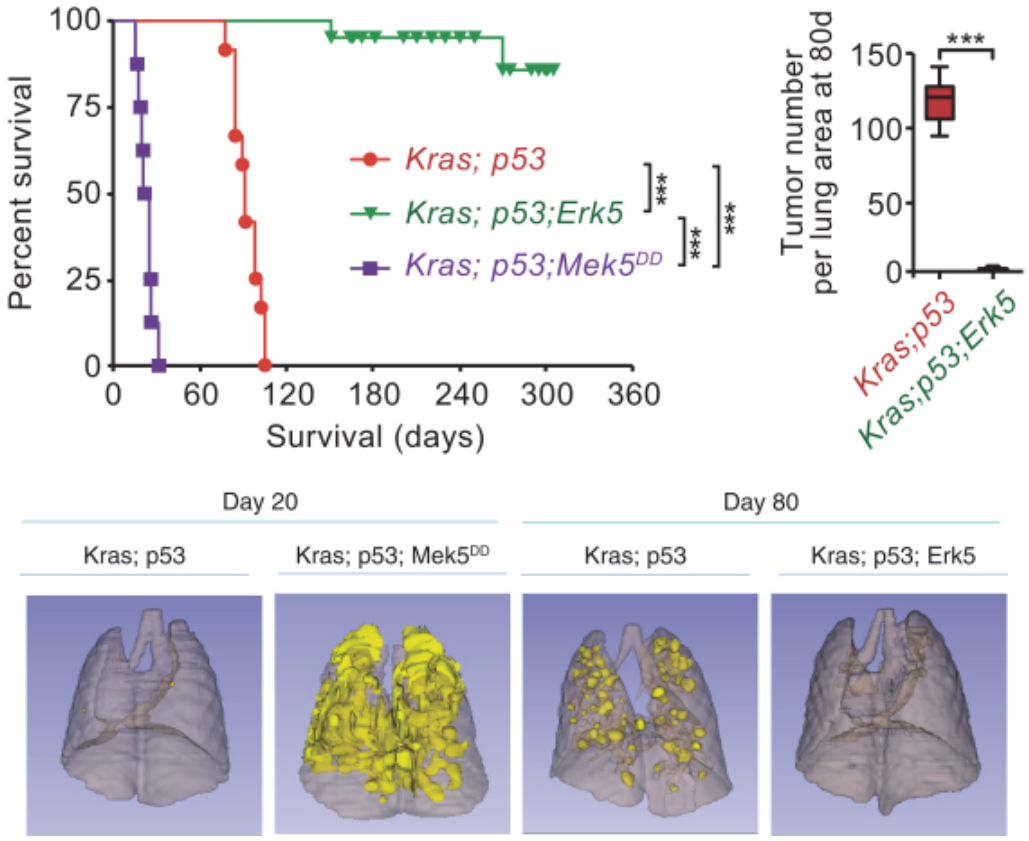
ERK5 knockout prevents tumor formation and improves survival in KRAS mouse lung tumor model



As illustrated in the figure below, we observed single agent antitumor activity in both a pancreatic and lung patient derived xenografts in mice using a small-molecule ERK5 inhibitor. This inhibitor is a potent and selective tool compound with an IC50 *in vitro* of 35 nM with high selectivity for ERK5 but has a short half-life and short PD effect.

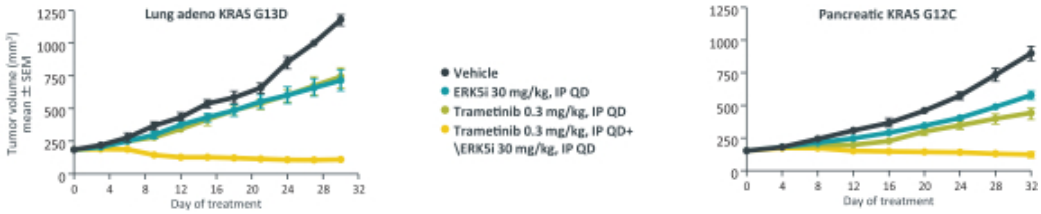
ERK5 inhibition reduces tumor growth in patient-derived mouse xenograft models of pancreatic and lung cancer

Moreover, we observed increased antitumor activity with dual ERK5 and MEK inhibition in KRAS mutant cancers in preclinical studies. In a three dimensional cell culture system, we observed that combined ERK5 and MEK inhibition led to synergistic antitumor activity (synergy score > 1.5) in two mutant KRAS lung cancer cell lines, NCI-H2122 (G12C KRAS mutation) and A-549 (G12S KRAS mutation), but not in the wildtype KRAS lung cancer cell line NCI-H520.

Synergy of ERK5 and MEK inhibition in KRAS mutant but not wild type cells in 3D cell culture system

In preclinical studies in KRAS primary human tumor models of lung and pancreatic cancer, we observed synergistic effects on tumor inhibition by combining this inhibitor tool compound of ERK5 and trametinib. These models contained mutations in the RAS pathway. These data, as illustrated in the figure below, suggest that, in addition to single agent potential in KRAS-mutated cancers, there is potentially a clinical opportunity for ERK5 inhibitors to be used in combination with MEK inhibitors and other targeted therapies to address therapeutic resistance in these patient populations.

Synergistic combination of MEK inhibitor and ERK5 inhibitor in KRAS mutant pancreatic (right) and lung (left) primary human tumor xenografts



ERK5 Opportunity and Disease Overview

Despite continuous industry efforts in the past several decades to develop therapies for KRAS mutant cancers, therapies directly targeting KRAS G12C are only now beginning to show clinical promise. For example, Amgen recently reported proof-of-concept in topline Phase 2 clinical trial results of their KRAS G12C inhibitor Sotorasib in advanced NSCLC. In the United States, about 13% of patients with NSCLC harbor the KRAS G12C mutation. Although there has been recent progress with these compounds that directly inhibit mutant KRAS, the majority of the KRAS space remains open. At this time, 85% of KRAS mutations (G12D, G12V, G13, others) are not being addressed by current product candidates or approved therapies. KRAS mutations are estimated to occur in about 26% of all cancers, including 25% of lung cancers, 90% of pancreatic cancers and between 27% and 56% of colorectal cancers. We believe that ERK5 represents a differentiated opportunity to address these high unmet medical need segments by modulating a key node downstream in the RAS signaling pathway. The three indications we plan to initially focus on are NSCLC, pancreatic cancer and CRC, which we believe are indications where there is strong biologic rationale for ERK5 inhibition and significant unmet medical need.

- *NSCLC*: There are an estimated 228,000 new cases of lung cancer diagnosed and approximately 135,000 deaths in the United States annually. NSCLC is estimated to account for approximately 80% to 85% of lung cancer cases and KRAS mutations are estimated to occur in about 25%. Previously, patients were treated primarily with radiation therapy or combinations of cytotoxic drugs. In the past 15 years, a number of targeted agents have been developed based on alterations in the genes for EGFR and anaplastic lymphoma kinase gene, or ALK, significantly improving the outcome of patients with NSCLC harboring these genetic alterations. Furthermore, in the last five years, the introduction of immunotherapy for the treatment of NSCLC patients has also improved the outcome of the treatment in patients, especially those with high PD-L1 expression. However, a significant proportion of NSCLC patients are ineligible for these novel therapies or develop resistance to existing treatments, representing an important unmet medical need. Approximately two-thirds of NSCLC patients are ineligible for treatment with EGFR or ALK targeted therapies, representing an important unmet medical need. Despite the availability of these new therapies, the prognosis in NSCLC remains poor, with an overall five-year survival for all patients diagnosed with NSCLC estimated to be approximately 19% and until recently there were no specific therapeutic options for this subset of patients. Even with the emergence of KRAS inhibitors targeting G12C mutations, most NSCLC patients with KRAS mutations will eventually progress and die due to their disease. An ERK5 inhibitor potentially could provide significant clinical benefit to patients with KRAS mutations as a monotherapy as and in combination to patients whose tumors have developed resistance to EGFR therapies.
- *Pancreatic cancer*: The American Cancer Society estimates that about 57,600 patients will be diagnosed with pancreatic cancer in 2020. The tendency of pancreatic cancer to spread silently before diagnosis makes it one of the deadliest cancer diagnoses. In metastatic pancreatic cancer, surgery and radiation are used only for symptom control. Chemotherapy, such as gemcitabine and 5-FU/leucovorin/oxaliplatin/irinotecan, can help improve pancreatic cancer symptoms and survival. The drug olaparib (Lynparza) has been approved for metastatic patients with the BRCA gene mutation whose cancer has responded well to chemotherapy. Unfortunately, in spite of the development of new treatments for pancreatic cancer, deaths due to this tumor are on the rise. The National Cancer Institute has identified targeting oncogenic RAS as one of the four major priorities for pancreatic cancer research. In that context, the development of an ERK5 inhibitor potentially could represent a promising strategy to achieve improvement in outcomes for patients with advanced pancreatic cancer.
- *CRC*: CRC is the second leading cause of cancer deaths in the United States. Despite the reduction of incidence and improvement of early detection in the United States, approximately 86% of patients are diagnosed after the onset of symptoms when their disease is relatively advanced. Patients with advanced CRC are treated with radiation and chemotherapy drugs such as 5-fluorouracil, oxaliplatin and capecitabine, as well as recently approved antibodies, that inhibit angiogenesis, such as bevacizumab. In a subset of CRC patients, treatment with antibodies targeting epidermal growth factor receptor, or EGFR, (for example, the agent cetuximab) has been shown to be effective both as

monotherapy and in combination with chemotherapy. However, approximately 40% of patients have a mutation in the KRAS gene that renders cetuximab ineffective. We believe an ERK5 inhibitor could restore sensitivity to EGFR inhibitors when given in combination.

Our solution, ERK5 inhibitor program

We are developing oral small molecule inhibitors of ERK5 and we believe there are currently no other ERK5 inhibitors in development. We plan to initially focus our development efforts in lung and pancreatic cancer due to the strong biological rational and large market opportunity. Lead optimization is ongoing using structural biology-guided chemistry and we anticipate nominating a development candidate and initiating IND-enabling studies in the second half of 2021. Our goal in lead optimization is to identify a novel, potent, selective, oral inhibitor of ERK5 with an optimized pharmacokinetic profile as compared to the existing ERK5 inhibitor tool compound. In addition, we have developed *in vitro* assays to determine the best compound to take forward into clinical development. We are also developing reagents that will allow us to look at the pharmacodynamics of selected compounds, including antibodies that detect active ERK5.

Earlier stage RAS programs

Beyond TEAD and ERK5, we are developing early stage discovery programs in targeted oncology and applying our patient-centric research and development approach. We have efforts underway to explore additional programs in the RAS pathway. We are focused on well-known targets and mutations in this pathway that lack approved or effective therapies and therefore represent high unmet medical needs and expect to nominate the first development candidate resulting from these discovery programs in 2022.

Tumor Microenvironment Programs

BMS-Partnered Programs: IK-175 and IK-412

We have two programs partnered with BMS which validates our capabilities and approach to advance internally developed product candidates into clinical development using biomarker-driven strategies. IK-175 is an inhibitor of AHR and patients with activated AHR are currently being enrolled in the dose expansion cohort of a Phase 1 clinical trial of patients with locally advanced or metastatic solid tumors, including bladder cancer. IK-412 is an enzyme therapy designed to lower levels of immunosuppressive kynurenine in the tumor microenvironment, and we are currently conducting IND-enabling studies. BMS, our strategic partner, has the exclusive right to license each of IK-175 and IK-412 through completion of the Phase 1b clinical trials. If BMS exercises both licenses, we would receive up to $90 million in opt-in fees, which could provide a meaningful and non-dilutive source of capital. We would have the right to receive clinical, regulatory and commercial milestone payments and royalties on worldwide net sales.

Recent Developments with the IDO1/TDO2 Pathway and Differentiation of Our Programs

Our tumor microenvironment programs explore promising immunosuppressive pathways including the IDO1 pathway. We have developed two programs in the IDO1 pathway (IK-175 and IK-412), each of which are partnered with BMS, which are differentiated from IDO1 inhibition preclinically by inhibiting bypass mechanisms to IDO1, including the TDO2 pathway which epacadostat or linrodostat do not modulate. We believe the IDO1 pathway remains a promising immunosuppressive pathway in cancer with strong clinical and translational rationale, based on recent supportive emerging data indicating that epacadostat was severely underdosed (by six-fold) in the Phase 3 clinical trial in melanoma patients, suggesting that the IDO1 pathway has not yet been adequately tested. In addition, BMS is developing an IDO1 inhibitor, linrodostat, which is in Phase 3 clinical trials in combination with nivolumab and/or neoadjuvant chemotherapy in muscle invasive bladder cancer, which we believe has the potential to further validate our approach.

Based on preclinical data, both IK-175 and IK-412 were observed to provide greater immune stimulation and tumor growth inhibition *in vivo compared to epacadostat. In addition, we have identified certain proprietary biomarkers expressed in cancer patients which we believe indicates a higher likelihood of responding to our therapies. For IK-175, for example, we are currently enrolling bladder cancer patients selected for a novel IHC biomarker we developed internally that measures activated AHR. For IK-412, we are exploring an enrichment strategy based on high serum kynurenine levels in these patients.*

IK-175, an AHR antagonist

IK-175 is a potent, selective oral antagonist of AHR. We observed evidence of antitumor activity of IK-175 as a monotherapy and in combination with an anti-PD-1 antibody in preclinical models. We are currently enrolling patients with bladder cancer with activated AHR in a dose expansion cohort of a Phase 1 clinical trial of IK-175 as a monotherapy. We also plan to evaluate IK-175 in combination with BMS' nivolumab in the Phase 1b portion of the clinical trial. Pursuant to our master collaboration agreement with Celgene Corporation (now BMS), or the BMS Collaboration Agreement, we are responsible for development of IK-175 through the completion of a Phase 1b clinical trial, through the completion of which BMS has an exclusive right to license IK-175 worldwide. See "—License and Collaboration Agreements—Master Collaboration Agreement with Bristol-Myers Squibb" for additional information.

Dual role of AHR in cancer progression

AHR is a ligand-dependent transcription factor that drives tumor progression through direct cancer cell and immunosuppressive effect in the tumor microenvironment. In some tumors, such as bladder cancer, high levels of AHR lead to constitutive, always-on activation and direct stimulation of tumor cell growth. AHR is also a critical component of a dominant immunosuppressive pathway in cancer, a pathway that modulates the function of cells in both the innate and adaptive components of the immune system. AHR is, in its inactive form, found in the cytosol, outside the nucleus. Upon binding of a signaling molecule or ligand, AHR migrates to the nucleus and functions as a transcription factor.

AHR is overexpressed and constitutively activated in a number of tumors, including, but not limited to, bladder cancer and advanced breast cancer. Constitutive activation of AHR also has been reported in head and neck squamous cell carcinoma as well as castration-resistant prostate cancer. In melanoma, constitutive activation of AHR is believed to represent a significant mechanism of resistance to approved inhibitors of BRAF kinase. Inhibition of constitutively active AHR in patient-derived acute myeloid leukemia cells has been shown to sensitize these cells to killing by natural killer cells.

Bladder cancer overview

We prioritized patients with bladder cancer as a lead indication for the development of IK-175 based on the following:

- Poor prognosis of patients with bladder cancer is associated with a high AHR transcript profiling score;
- High levels of AHR mRNA and protein as measured by immunohistochemistry and RNAscope are found in bladder cancers;
- AHR amplifications have been described in approximately 5% to 22% of bladder cancer patients; and
- Nuclear localization of AHR is high in bladder cancers.

Bladder cancer is the most common malignancy involving the urinary system and there were an estimated 81,400 new cases of bladder cancer and 17,980 deaths in the United States in 2020. The five-year survival for patients with early stage disease is 88%; however, for patients with metastatic disease or cancer that has spread to other parts of the body, the five-year survival drops to 5%.

The most common treatment for patients diagnosed with advanced or metastatic bladder cancer is chemotherapy with platinum-based drugs such as carboplatin or cisplatin in combination with gemcitabine. Patients with metastatic disease that progresses during or after platinum-based chemotherapy are increasingly being treated with checkpoint immunotherapy. A number of PD-1 and PD-L1 checkpoint inhibitors have been approved by the FDA for the treatment of patients with refractory bladder cancer. Objective response rates in clinical trials with checkpoint inhibitors have generally been between 13% and 29%. The median overall survival of patients with advanced or metastatic bladder cancer from the start of initial therapy is 12.7 months.

We began our ongoing trial of IK-175 with enrolling patients with solid tumors with a specific focus on urothelial (bladder) cancer patients based on the high unmet medical need in bladder cancer and the biological rationale of the role of AHR in this tumor type. We are currently enrolling bladder cancer patients, irrespective of prior anti-PD-1 therapy, and have a biomarker for AHR that can help identify patients whose pathway is activated. For the combination arm with nivolumab that we expect to initiate in the first half of 2021, bladder cancer patients will have been treated with nivolumab or other PD-1 therapy prior to be enrolled onto that arm. Moreover, we will seek to enroll a subsection of patients who are AHR biomarker positive in the combination arm.

Our solution, IK-175

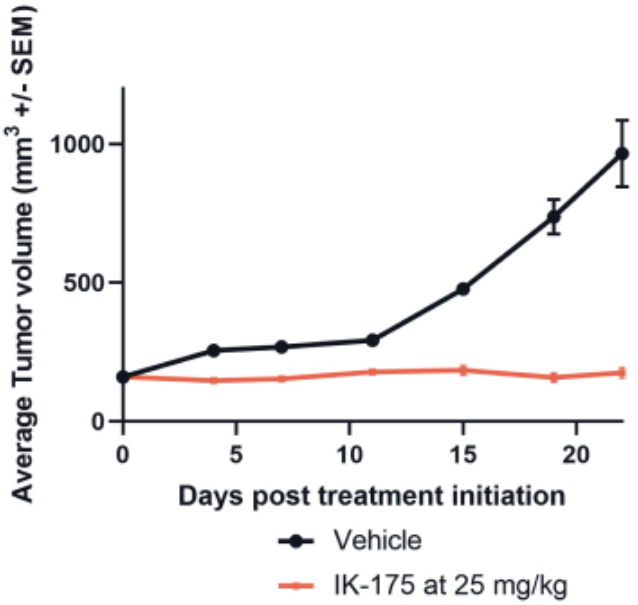
IK-175 is an internally discovered small molecule AHR antagonist that we are developing for the treatment of advanced or metastatic solid tumors, including bladder cancer where AHR-activation is known to lead to poor prognoses. We observed that IK-175 is potent and selective for AHR in multiple *in vitro* assays and species.

We are currently enrolling patients with locally advanced or metastatic solid tumors in an open-label Phase 1 clinical trial evaluating IK-175 as a monotherapy, including a dose expansion cohort for patients with bladder cancer. Clinical pharmacokinetic and pharmacodynamic data supports once-daily clinical dosing in patients.

IK-175 preclinical data

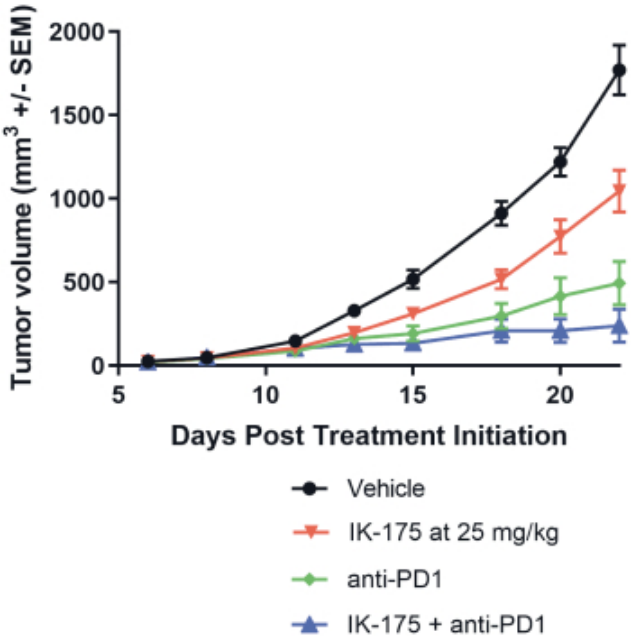
In preclinical studies, we observed antitumor activity in AHR-dependent tumors and immune-driven antitumor responses following administration of IK-175. CAL-27 is an oral squamous cell carcinoma in which AHR is constitutively active. Over 92% of CAL-27 cultured cells *in vitro* were found to have AHR localized in the nucleus compared to less than 13% of cells from normal tissue. Based upon these findings, we assessed the direct antitumor effect of IK-175 in a CAL-27 xenograft model. This model uses an immunocompromised mouse, which allows us to minimize the potential role of IK-175 in tumor immune regulation and isolate the direct antitumor function of IK-175. In this model illustrated in the figure below, monotherapy treatment with 25 mg/kg of IK-175 arrested tumor growth.

Direct antitumor activity of IK-175 in a CAL-27 immunocompromised mouse model



We also assessed the tumor immune activity of IK-175 alone and in combination with anti-PD-1 antibody in a CT-26 colon cancer model in immune competent mice. Four days after inoculation of CT-26, we initiated once daily oral dosing with vehicle control or 25 mg/kg IK-175 and continued for 53 days. Concurrently, 10 mg/kg of an anti-PD-1 antibody was administered twice a week for a total of 5 doses. Monotherapy with IK-175 resulted in an approximately 41% inhibition of tumor growth. Treatment with an anti-PD-1 antibody alone resulted in tumor growth inhibition of approximately 72% and four complete responses out of ten mice. The combination of IK-175 and an anti-PD-1 antibody resulted in an approximately 87% inhibition of tumor growth including complete responses in seven out of ten mice. Mice with complete responses were re-challenged with CT-26 tumor cells after 95 days and were found to be resistant to tumor formation with only one small tumor (>104 mm^3) detected in one mouse of the seven tested. We believe that the improved antitumor activity and long-term antitumor memory observed in these studies is due to the ability of both IK-175 and anti-PD-1 antibody to overcome independent mechanisms of tumor immunosuppression. In contrast to IK-175, epacadostat does not have activity in the CT-26 model (see *"—IK-412 preclinical data").*

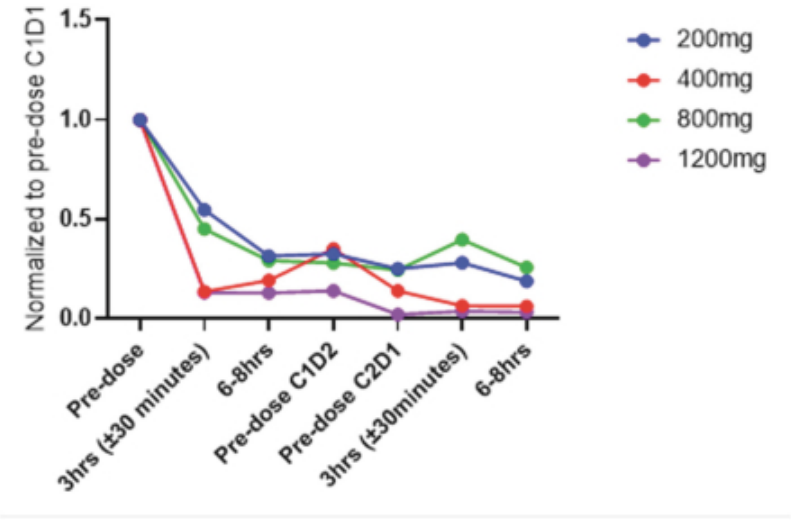
Immune-stimulated antitumor activity of IK-175 in a CT-26 immunocompetent mouse model



Ongoing Phase 1 clinical trial

We are currently enrolling patients with locally advanced or metastatic solid tumors in an open-label Phase 1 clinical trial evaluating IK-175 as a monotherapy, including a dose expansion cohort for patients with bladder cancer. The primary endpoint of this trial is safety and tolerability. As of January 1, 2021, we have dosed patients in the 200 mg, 400 mg, 800 mg, 1200 mg and 1600 mg once daily monotherapy dose escalation cohorts. We have not observed any dose limiting toxicities, or DLTs, to date and have not reached the maximum tolerated dose. In the first four dose cohorts, we observed dose responsive target gene inhibition in whole blood assay from patient samples, as set forth in the graph below. We have also recently initiated monotherapy expansion at 1200 mg in urothelial carcinoma patients with activated AHR in their tumors.

IK-175 target modulation in patients



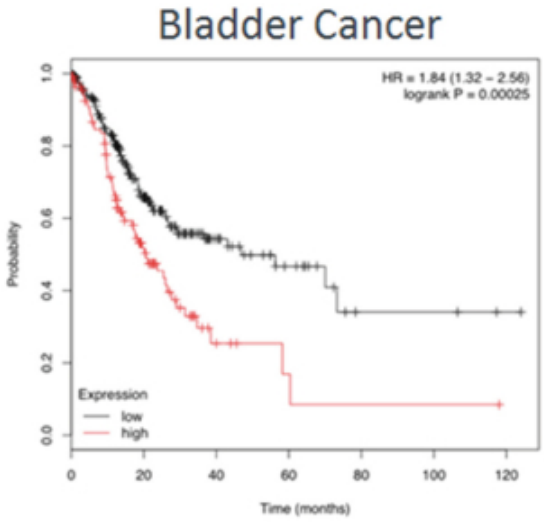
We plan to initiate the Phase 1b portion of the clinical trial design, evaluating the combination of IK-175 with nivolumab, BMS' PD-1 inhibitor, in patients with bladder cancer, in the first half of 2021.

IK-175 indication and patient selection strategy

Our IK-175 clinical development strategy is focused on enrolling patients who are most likely to respond to an AHR antagonist. We have explored three tumor profiling technologies centered on AHR to help guide indication selection and/or candidate patients:

- AHR gene amplification: Increases in the number of copies of the AHR gene as assessed by Fluorescent In Situ Hybridization, or FISH, are observed in over 5% of multiple cancers such as esophageal, bladder and lung cancers.
- Nuclear localization of AHR: Constitutive activation of AHR leads to its localization to the nucleus, which can be directly measured by a proprietary immunohistochemical staining assay that we developed. In the monotherapy expansion cohort, we are prospectively enriching for patients with tumors that exhibit activated AHR using this assay.
- AHR-dependent gene transcription: Activation of AHR leads to changes in transcription of many genes which can be quantified by standard mRNA transcription profiling technologies. We discovered this gene transcription expression signature. We generated a profile of the transcriptional changes induced by AHR activation across a panel of cell lines. We then used this profile to score tumors based on available transcript profiling data in public databases. We found that bladder cancer patients with transcriptional profiles that scored highest using our activated AHR profile had poorer prognoses compared to those with low scores, as illustrated in the figure below.

AHR-activated gene transcription signature is associated with poor overall survival in bladder cancer patients



IK-175 development plan

We are currently enrolling patients with locally advanced or metastatic solid tumors in an open-label Phase 1 clinical trial evaluating IK-175 as a monotherapy, including a dose expansion cohort for patients with bladder cancer. We have recently initiated the monotherapy dose expansion cohort at 1200 mg in bladder cancer patients with tumors that exhibit activated AHR, using an assay that we developed. We plan to initiate the Phase 1b portion of the clinical trial in the first half of 2021 by opening a combination arm of the ongoing trial to combine IK-175 with nivolumab, BMS' PD-1 inhibitor, in patients with bladder cancer and expect to complete enrollment in both treatment arms in the second half of 2022. Moreover, we plan to initiate a clinical trial in a second solid tumor indication in the second half of 2021.

IK-412, a recombinant human kynurenine-degrading enzyme

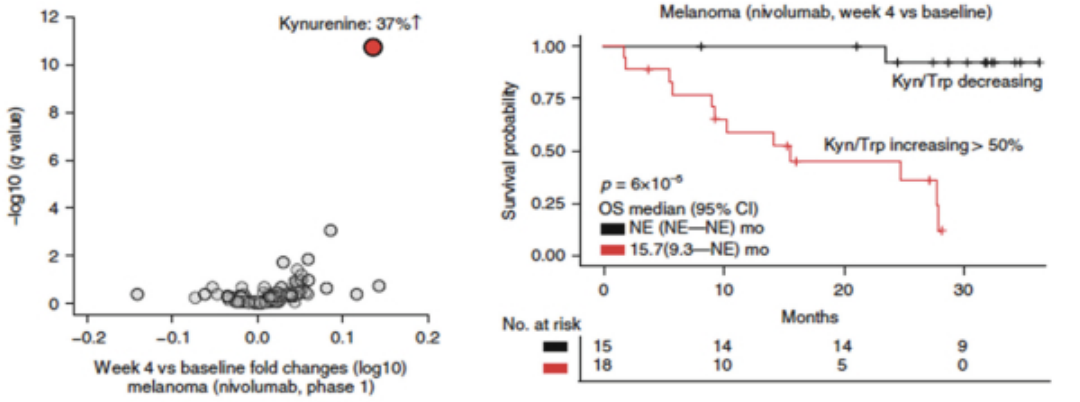
IK-412, is a recombinant human kynurenine-degrading enzyme intended to catalyze the degradation of kynurenine, an immunosuppressive metabolite that is present in tumors and in the blood of certain cancer patients and is generated by the enzymes IDO1 and TDO2. We believe IK-412 inhibits the IDO1 pathway in a manner that selective IDO1 inhibitors are able to achieve, by degrading kynurenine regardless of whether it is synthesized by IDO1 or TDO2. In preclinical studies, IK-412 was observed to lead to durable and profound depletion of over 95% of serum levels of kynurenine, as compared to 50% for the IDO1 inhibitor epacadostat. IK-412 has been optimized for enzymatic activity and stability in plasma which we observed in non-human primates to be consistent with weekly or biweekly dosing in humans. Based on preclinical data, we also believe IK-412 has the potential to overcome PD-1 checkpoint inhibitor resistance. We have also observed antitumor activity when dosed both as a monotherapy and in combination with checkpoint inhibitors and increased overall survival when dosed in combination with checkpoint inhibitors in preclinical studies. We intend to submit an IND application with the FDA for IK-412 in the second half of 2021. To inform indication selection, we have developed several translational assays, including an immunohistochemistry screen using IDO1 and TDO2 antibodies to help prioritize solid tumors. We are working to detect kynurenine in tumors and in the blood of certain patients with solid tumors.

Immunosuppressive activity of kynurenine and role in PD-1 resistance

Tumors take several routes to suppress destruction by the immune system. One such mechanism involves the formation of kynurenine from its precursor tryptophan by the enzymes IDO1 and TDO. TDO, which is known to be capable of metabolizing tryptophan to form kynurenine, is typically expressed in the liver, but it can also be overexpressed in multiple tumors. Various published studies indicate that there is a correlation between kynurenine production and immune suppression. Multiple therapeutic programs have been directed at inhibiting the formation of kynurenine primarily through the inhibition of the enzyme IDO1. Selective IDO1 inhibitors that have been tested in the clinic include epacadostat, developed by Incyte Corporation, or Incyte. It was recently disclosed that epacadostat was severely underdosed (by six-fold) in a Phase 3 clinical trial in patients with metastatic melanoma when used in combination with pembrolizumab, suggesting that the IDO1 pathway has not yet been tested adequately in humans. We believe IK-412 may provide a more potent and robust way of impinging on this important pathway by inhibiting the downstream of IDO1 and TDO2, where the pathways converge.

Another important aspect of kynurenine is the way that tumors appear to use it to resist or lessen the impact of treatment with checkpoint inhibitors. As illustrated in the figure below, treatment of melanoma patients with BMS' nivolumab was found to increase the levels of multiple metabolites, but not more significantly than kynurenine. Using the ratio of kynurenine to tryptophan as a metric of the relative conversion of tryptophan to kynurenine, it was observed that this ratio spanned a range of eight-fold among patients. Strikingly, melanoma patients in which this ratio increased over four weeks of nivolumab treatment, consistent with the formation of kynurenine, had significantly reduced survival, 15.7 months, compared to patients with a decreasing ratio, over 85% of which survived over 38 months. A similar trend was observed in renal carcinoma cancer with patients with increasing ratios having a 16.7 month mean overall survival and those with decreasing ratios with a mean 31.3 month overall survival. These results suggest that reducing the ratio of kynurenine to tryptophan may improve the therapeutic efficacy of checkpoint inhibitors such as nivolumab.

Increased serum kynurenine to tryptophan ratio is associated with worse overall survival in melanoma

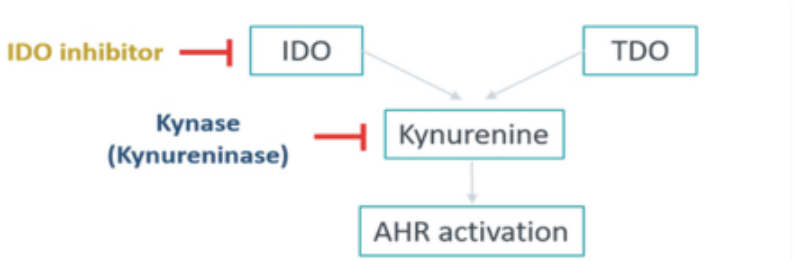


Our solution, IK-412

IK-412, our therapeutic candidate, is a recombinant human enzyme that breaks down kynurenine, leading to durable elimination of over 95% of serum levels of kynurenine in animal models after a single dose. We believe that IK-412's robust ability to degrade kynurenine in a durable manner, regardless of its source from IDO1 or TDO2, has the potential to be differentiated from other selective kynurenine-reducing approaches such as IDO1 inhibition. Moreover, given the emerging role of kynurenine in checkpoint resistance, IK-412 may be able to overcome PD-1 resistance in tumors with high IDO1/TDO2 expression. TDO2 is expressed, in addition to IDO1,

in many tumors and may make selective IDO1 inhibition insufficient to relieve the full immunosuppressive effect of kynurenine. We believe IK-412 may provide a more potent and robust way of impinging on this important pathway by inhibiting the downstream of IDO1 and TDO2, where both pathways converge, as illustrated in the figure below. IK-412 is undergoing IND-enabling studies and we intend to submit an IND in the second half of 2021.

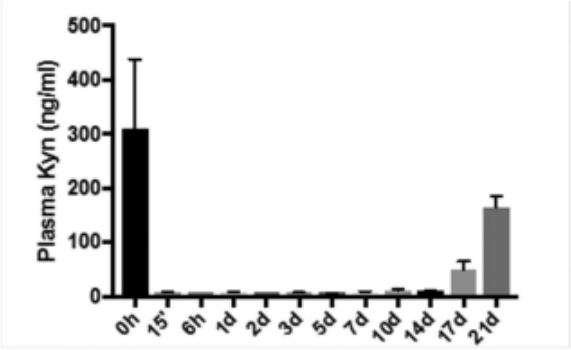
A kynureninase acts downstream of IDO1/TDO2 thereby being able to block kynurenine irrespective of its source.



IK-412 preclinical data

IK-412 is a highly active and stable human enzyme which is the product of protein engineering efforts. IK-412 contains 14 mutations compared to the native human enzyme to optimize enzymatic activity and stability in plasma required for the enzyme to be used as an oncology therapeutic. It is pegylated for stability and to reduce potential immunogenicity. IK-412 was not immunogenic after repeat dosing as assessed by Anti-Drug Antibody, or ADA, analysis in rats. As illustrated in the figure below, a single dose of 100 mg/kg of IK-412 administered to non-human primates led to rapid elimination of serum kynurenine with levels decreased by over 95% within 15 minutes. These reduced levels were maintained for at least 14 days and serum kynurenine levels were still less than half of the starting concentrations after 21 days.

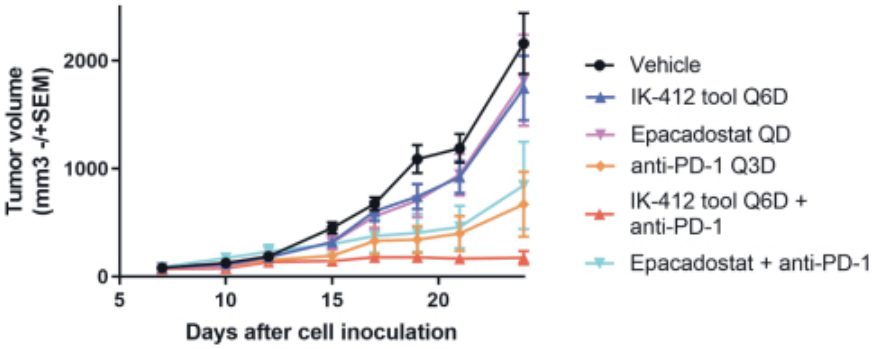
A single dose of 100mg/kg IK-412 reduced kynurenine levels by over 95 percent for over two weeks in non-human primates



The potential of IK-412 to overcome resistance of tumors to checkpoint inhibition was tested in a CT-26 syngeneic colon cancer mouse model. Dosing of these mice with a PD-1 checkpoint inhibitor led to approximately 63% tumor growth inhibition. Dosing with an IK-412 tool enzyme as a monotherapy had no significant effect. However, when we combined the IK-412 tool enzyme with the checkpoint inhibitor, we observed that tumor growth was significantly inhibited. In parallel, we dosed mice with a combination of

epacadostat and a PD-1 checkpoint inhibitor and observed that addition of epacadostat did not lead to any improvement in antitumor activity, as illustrated in the figure below.

The addition of an IK-412 tool enzyme to a PD-1 checkpoint inhibitor improved antitumor activity in a CT-26 model



IK-412 indication selection strategy

We are exploring multiple strategies to guide selection of tumor types for the upcoming Phase 1 clinical trial with IK-412:

- We assessed gene expression databases with the goal of identifying tumors that have high levels of expression of the genes for TDO and IDO1, the two enzymes responsible for kynurenine levels. Based on these analyses, we believe certain solid tumor types may represent attractive potential indications.
- We are also conducting an immunohistochemistry screen of a panel of tumors using IDO1 or TDO antibodies to guide selection of tumors.
- Finally, we are working to identify those tumors where increases in kynurenine levels may be associated with development of resistance to checkpoint inhibitors.

IK-412 clinical development

IK-412 is undergoing IND-enabling studies and we plan to submit an IND in the second half of 2021. As our translational studies continue, we will finalize our plans for clinical development. Our Phase 1 clinical trial will be designed as an open-label clinical trial to explore safety, PK/PD and preliminary efficacy of IK-412 as monotherapy and in combination with nivolumab in solid tumors. The tumors will be selected based on the presence of high levels of IDO1 and TDO2 tumor expression. We also plan to assess kynurenine levels in the blood of patients in the expansion cohorts of the study.

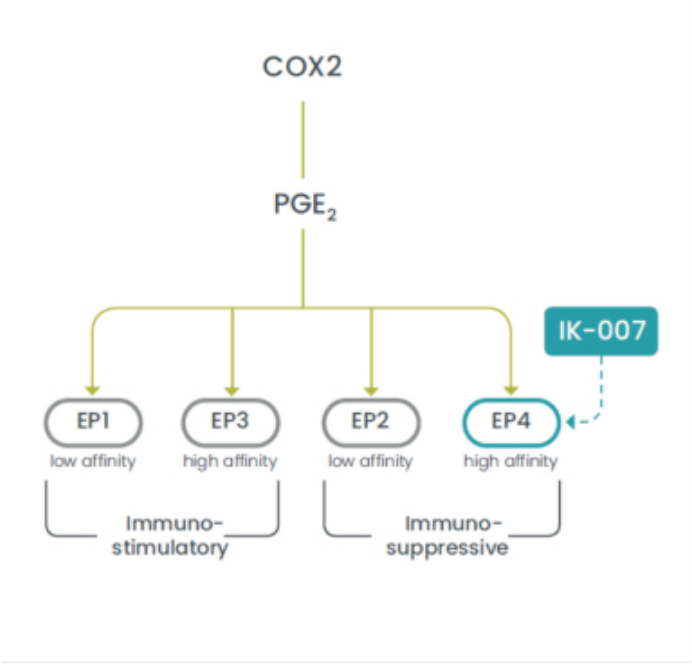
IK-007, an EP4 antagonist

IK-007 is an oral selective antagonist of the EP4 receptor. IK-007 has been well tolerated in over 900 subjects to date in non-oncology clinical trials. We are conducting a Phase 1b clinical trial of IK-007 in combination with pembrolizumab for the treatment of patients with MSS CRC, which represents approximately 85% of patients with CRC. In this Phase 1b clinical trial, we observed encouraging preliminary evidence of tolerability and antitumor activity and have not observed any DLTs in the initial dose escalation cohort. In addition, we have identified higher baseline levels of urinary PGEM, a metabolite in the EP4 pathway, as a biomarker that we believe is associated with clinical benefit. We are enrolling patients in a dose expansion cohort using baseline levels of urinary PGEM to enrich for MSS CRC patients who may be more likely to respond to treatment. We anticipate completing enrollment in the Phase 1b clinical trial in the second half of 2021.

Role of EP4 Pathway in cancer

Prostaglandin-endoperoxide synthase 2, or COX2, is an enzyme that is responsible for the production of prostaglandins during inflammation, including Prostoglandin E_2 or PGE_2. PGE_2 sends its signals through four distinct receptors, known as EP1 through EP4, and these receptors in immune cells can have either stimulatory or suppressive activities. We believe that blocking immunosuppressive activity by inhibiting EP4, the higher affinity immunosuppressive receptor of PGE_2, could be valuable in treating cancer. We also believe that selectively blocking PGE_2 signaling through EP4 could lower the likelihood of toxicities that may result from fully blocking this fundamental pathway. The figure below illustrates the mechanism of action of IK-007.

IK-007 selectively blocks EP4, the high affinity immunosuppressive receptor in the COX2/PGE2 pathway.



A large body of literature demonstrates that activation of the PGE_2 pathway in cancer augments tumor initiation, progression and therapeutic resistance. Increased expression of pathway components, including EP4, is associated with decreased survival, therapeutic and preventive precedent in a number of cancer types, including CRC. When activated, EP4 affects the activity of a broad range of cells within the innate and adaptive immune system culminating in an immunosuppressive tumor microenvironment. Preclinical studies suggest that a selective antagonist of EP4 has the potential to bring therapeutic benefit to tumors such as CRC by changing the immunosuppressive tumor microenvironment so that tumors can become more accessible to the penetration of immune cells and more susceptible to the activity of checkpoint inhibitors.

MSS CRC Overview

CRC is the second leading cause of cancer deaths in the United States. The National Cancer Institute estimates that there were 147,950 new cases of CRC and 53,200 CRC related deaths in the United States in 2020. Approximately 35% of patients newly diagnosed with CRC will die within five years. PD-1 checkpoint inhibitors have been approved in a subset of CRC known as microsatellite instability-high, or MSI-H, tumors. MSI-H tumors are found in about 15% of CRC patients, with microsatellite stability, or MSS, tumors representing the

remaining 85% of patients. The prognosis of MSS CRC patients is significantly poorer than that of MSI-H patients. MSS CRC represents a large unmet clinical need. Interim data of single agent treatment with pembrolizumab showed an overall response rate in MSS CRC of 0% (0/18).

Our solution, IK-007

IK-007 is a selective EP4 antagonist originally discovered by Pfizer that we licensed to explore as a potential cancer therapy. IK-007 has been dosed in over 900 adults in previous non-oncology clinical trials, including in two Phase 2 clinical trials on the treatment of osteoarthritic knee pain. In normal healthy volunteers studies, IK-007 was found to be well tolerated when administered as a single dose up to 1000 mg and as multiple doses up to 300 mg twice a day for 14 days. Based on the biological rationale for PGE_2/EP4 in CRC and the high unmet medical need in MSS CRC, in particular given that single agent pembrolizumab is inactive in these patients, we are currently conducting a Phase 1b clinical trial of IK-007 in combination with pembrolizumab for the treatment of patients with MSS CRC. Encouraging preliminary evidence of antitumor activity and higher baseline levels of a potential predictive PGE2 metabolite biomarker, called PGEM, are emerging from the ongoing trial. As of February 1, 2021, we have 46 patients enrolled in our Phase 1b clinical trial and we plan to complete enrollment of our Phase 1b clinical trial in the second half of 2021.

Ongoing Phase 1b trial

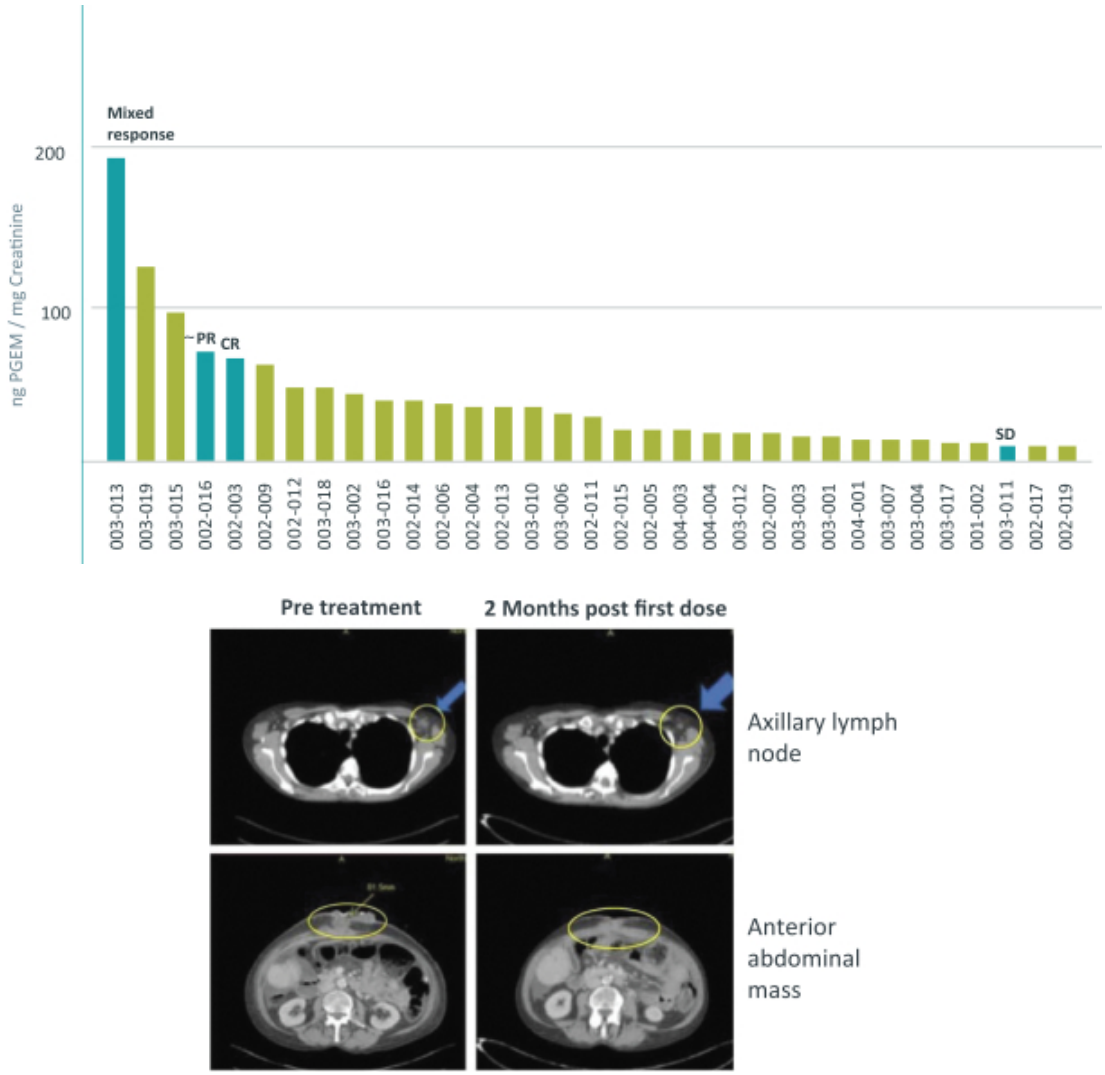
As of February 1, 2021, a total of 27 patients have been enrolled at 300 mg bid, 3 patients at 450 mg bid and 3 patients at 600 mg bid, and we are currently enrolling patients at 900 mg bid. We are conducting a single arm Phase 1b clinical trial of IK-007 in combination with pembrolizumab in patients with MSS CRC patients who have received at least two lines of prior systemic therapy and progressed, and therefore unlikely to respond to pembrolizumab monotherapy. The primary endpoint of this trial is safety and tolerability of IK-007 alone and in combination with pembrolizumab.

While early in development, we are encouraged by the observed antitumor activity of IK-007 in combination with pembrolizumab. As of February 1, 2021, we observed evidence of clinical benefit (complete response, or CR, partial response, or PR, and stable disease, or SD, for 16 weeks) in four out of 20 evaluable patients treated at 300 mg bid p.o. as follows:

- One patient had a CR and remained on study for 22 months;
- One patient experienced 29% tumor shrinkage that was close to meeting the criteria for a PR;
- One patient had durable stable disease for over six months (prolonged SD); and
- One patient had a mixed response with shrinkage of some but not all tumors and stable disease for 17 weeks (prolonged SD).

The patient who reached a CR had received five prior lines of therapy. This highly refractory patient’s tumor also exhibited low tumor mutational burden, or TMB, reducing the likelihood that the antitumoral response could be due to pembrolizumab treatment alone as high TMB is often associated with response to anti-PD-1 therapies. Tumor response was observed soon after commencement of dosing with IK-007. A significant shrinkage of 48% of the tumor size was observed by CT scan after approximately two months of combined therapy. With additional cycles of treatment, evidence of tumor in this patient disappeared and the patient was classified as a complete responder, as illustrated in the figure below. This patient was on treatment for 22 months.

Complete response in an MSS CRC patient treated with 300 mg IK-007 and 200 mg pembrolizumab, and association with high urinary PGEM levels.



Moreover, we have identified a biomarker in the EP4 pathway, higher baseline levels of urinary PGEM, that we believe can help us select for patients who may benefit the most from IK-007. An ad hoc analysis of the first 33 patients enrolled in the study showed that there was a significant correlation between higher baseline levels of urinary PGEM and clinical benefit observed and with prolonged time on treatment (defined as over 16 weeks on study drug). High urine levels of PGEM (> 50 ng/mg creatinine) were present in approximately 20% (21.2% with 95% CI 9.0-38.9) of the first 33 CRC patients tested for PGEM in the study.

The most common related adverse events were Grade 1 or Grade 2 fatigue, pruritus and Grade 3 or Grade 4 increased gamma-glutamyl transferase, a liver enzyme.

Given the early positive tolerability profile of IK-007 in the first two cohorts (300 mg BID) in combination with pembrolizumab as well as encouraging signs of activity at this dose, we amended the protocol to explore three more dose escalation levels of IK-007: 450 mg, 600 mg and 900 mg BID in combination with pembrolizumab. No DLTs in the three additional dose escalation cohorts were observed up to 900 mg BID. Most adverse events observed included myalgia, anemia, decrease appetite, insomnia and diarrhea, mostly Grade 1 or Grade 2. We also observed transient elevations of liver function tests, or LFTs, that in a few cases required IK-007 dose modifications.

Based on these data, we selected the dose of 900 mg BID of IK-007 in combination with pembrolizumab (200 mg) every three weeks for the dose expansion cohort. The trial is ongoing and will enroll up to 58 patients total, including at least ten patients with high baseline levels of urinary PGEM.

In selecting patients to receive IK-007, our objective is to focus treatment on patients who are most likely to respond. We generated a validated urine PGEM biomarker assay. We are currently using it to measure baseline PGEM urinary levels to select patients who are more likely to respond in our MSS CRC dose expansion cohort. We expect that the enrollment of the ongoing MSS CRC clinical trial will be completed in the second half of 2021.

We also conducted a second open-label single arm Phase 1b clinical trial of IK-007 in combination with pembrolizumab in patients with advanced or metastatic post anti-PD-1/L1 treatment in NSCLC. Based on the combined data generated in the interim period for efficacy and safety, we decided not to further explore this combination in NSCLC and terminated this clinical trial in December 2020.

We believe that IK-007 may have the potential to bring therapeutic benefit beyond MSS CRC and we may expand into certain additional indications in which there is high unmet medical need and biological rationale for the key role of EP4 pathway in cancer progression.

Competition

The biotechnology and pharmaceutical industries are characterized by rapid innovation of new technologies, fierce competition and strong defense of intellectual property. While we believe that our pipeline and our knowledge, experience and scientific resources provide us with competitive advantages, we face competition from major pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions, among others.

We compete in the segments of the pharmaceutical, biotechnology, and there are other companies focusing on structural biology-guided chemistry-based drug design to develop therapies in the fields of cancer and other diseases. These companies include divisions of large pharmaceutical companies and biotechnology companies of various sizes. Any product candidates that we successfully develop and commercialize will compete with currently approved therapies and new therapies that may become available in the future from segments of the pharmaceutical, biotechnology and other related markets that pursue targeted oncology therapeutics. Key product features that would affect our ability to effectively compete with other therapeutics include the efficacy, safety and convenience of our products.

We believe principal competitive factors to our business include, among other things, our ability to identify promising biomarkers, our ability to successfully transition research programs into clinical development, our ability to raise capital, and the scalability of our pipeline and business.

Our competitors may obtain regulatory approval of their products more rapidly than we may or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are more effective, more convenient, more widely used and less costly or have a better safety profile than our products and these competitors may also be more successful than us in manufacturing and marketing their products.

Furthermore, we also face competition more broadly across the market for cost-effective and reimbursable cancer treatments. The most common methods of treating patients with cancer are surgery, radiation and drug therapy, including chemotherapy, hormone therapy and targeted drug therapy or a combination of such methods. There are a variety of available drug therapies marketed for cancer. In many cases, these drugs are administered in combination to enhance efficacy. While our product candidates, if any are approved, may compete with these existing drug and other therapies, to the extent they are ultimately used in combination with or as an adjunct to these therapies, our product candidates may not be competitive with them. Some of these drugs are branded and subject to patent protection, and others are available on a generic basis. Insurers and other third-party payors may also encourage the use of generic products or specific branded products. We expect that if our product candidates are approved, they will be priced at a significant premium over competitive generic, including branded generic, products. As a result, obtaining market acceptance of, and gaining significant share of the market for, any of our product candidates that we successfully introduce to the market will pose challenges. In addition, many companies are developing new therapeutics, and we cannot predict what the standard of care will be as our product candidates progress through clinical development.

IK-930

We are not aware of any TEAD inhibitor in clinical development. Other companies that have publicly disclosed that they are developing preclinical stage TEAD inhibitors are: Vivace Therapeutics, Inc., Inventiva Pharma, Kyowa Kirin, and Roche/Genentech.

ERK5

We are not aware of any other ERK5 inhibitor in development. Efforts over the past several decades have failed to develop approved therapies for KRAS mutant cancers. Therapies directly targeting KRAS G12C are beginning to show clinical promise and proof-of-concept, such as AMG-510 being developed by Amgen Inc. and MRTX849 being developed by Mirati Therapeutics, Inc., both in Phase 3 in KRAS G12C mutant NSCLC.

IK-175

We are aware of one other AHR antagonist in clinical development under development by Bayer AG, or Bayer. Bayer is currently enrolling patients with advanced solid tumors in a Phase 1 trial for BAY-2416964 in advanced solid tumors.

IK-412

We are not aware of any other kynurenine degrading enzyme product candidates in development. The closest competitors are IDO/TDO inhibitors which have shown limitations in recent clinical trials. As a consequence, activity in the IDO/TDO inhibitor space has been low recently, with the exception of Incyte’s epacadostat and BMS’s lindorostat. BMS is actively recruiting for several clinical studies, including one Phase 3 to assess lindorostat, alone and in combination with nivolumab, in bladder cancer.

IK-007

IK-007 is one of the EP4 antagonists currently in clinical development. The other programs in clinical development are from Ono Pharmaceutical (ONO-4578), Adlai Nortye/Eisai (AN-0025 / E-7046) and Tempest Therapeutics (TPST-1495), all of which are in Phase 1 clinical trials in combination with anti-PD-1 therapy in advanced solid tumors.

License and Collaboration Agreements

Master Collaboration Agreement with Bristol-Myers Squibb

In January 2019, we entered into the BMS Collaboration Agreement with Celgene Corporation (which was acquired by BMS in November 2019) under which BMS may elect in its sole discretion to exclusively license rights to develop and commercialize compounds (and products and diagnostic products containing such compounds) that modulate the activity of two collaboration targets, kynurenine and AHR, excluding AHR agonists except for inverse agonists, or the Collaboration Candidates, which we are developing as IK-175 and IK-412. The BMS Collaboration Agreement triggered an upfront payment of $95.0 million, which consisted of approximately $80.5 million in cash and an equity investment of approximately $14.5 million for which we issued 14,545,450 shares of our Series A-1 Preferred Stock pursuant to a separate stock purchase agreement.

On a program-by-program basis, through the completion of a Phase 1b clinical trial for each of IK-175 and IK-412, BMS has the exclusive right with respect to such Collaboration Candidate to a worldwide exclusive license with us to develop, commercialize and manufacture the compound (and products and diagnostic products containing such compounds) underlying such Collaboration Candidate. Additionally, if we do not complete a Phase 1b clinical trial by the end of the research term (as defined below), we may elect to provide a data package to BMS upon which BMS may exercise the foregoing option for an additional $0.25 million fee.

If and when BMS exercises its rights for a Collaboration Candidate, and as a result of the timing of our submission of INDs with respect to each Collaboration Candidate, BMS is required to pay us $50.0 million, in the case of an exercise of its option with respect to IK-175, and $40.0 million, in the case of an exercise of its option with respect to IK-412. The option exercise fees are payable within fifteen (15) days after the execution of each license agreement. Upon the execution of each license agreement, we will become eligible to receive up to $265.0 million under such license agreement in regulatory milestones and $185.0 million in commercial milestones as well as a tiered royalties at rates ranging from the high single to low teen percentages based on worldwide annual net sales by BMS, subject to specified reductions.

BMS will continue to pay royalties on a Collaboration Candidate-by-Collaboration Candidate and country-by-country basis, until the latest of (i) there being no valid claim under the licensed patents covering the Collaboration Candidate, (ii) expiration of all regulatory exclusivity for the Collaboration Candidate in such country, and (iii) twelve (12) years after the first commercial sale of the Collaboration Candidate in the applicable country (the Royalty Term), after which the applicable license granted to BMS in such country will become non-exclusive, fully paid-up, perpetual, irrevocable and royalty-free.

The research term under the BMS Collaboration Agreement continues for a period of five (5) years from its effective date. The term of any license agreement described above would continue on a Collaboration Candidate-by-Collaboration Candidate and country-by-country basis until the expiration of all Royalty Terms under such agreement, unless earlier terminated as described below.

The BMS Collaboration Agreement may be terminated (i) by either party on a program-by-program basis if the other party remains in material breach of the BMS Collaboration Agreement following a cure period to remedy the material breach, (ii) by BMS at will on a program-by-program basis or in its entirety, (iii) by either party, in its entirety, upon bankruptcy or insolvency of the other party, or (iv) automatically, on a program-by-program basis if BMS fails to timely deliver an opt-in notice to us.

Each license agreement may be terminated (i) by either party if the other party remains in material breach of the license agreement following a cure period to remedy the material breach, (ii) by BMS at will, (iii) by either party, in its entirety, upon bankruptcy or insolvency of the other party, or (iv) by us, in its entirety, if BMS challenges a patent licensed by us to BMS under the license agreement or any jointly-owned collaboration patents.

Upon our termination of a license agreement for BMS' breach, bankruptcy or insolvency or patent challenge, we would receive (i) upon our timely request, a nonexclusive worldwide license under BMS' know-how and patents covering the applicable licensed compound to the extent that such compound (or product or diagnostic product containing such compound) has been or is in active development or commercialization as of termination; and (ii) subject to determination of an applicable license payment in accordance with the license agreement, an exclusive license for the foregoing. If BMS terminates a license agreement for our breach or bankruptcy or insolvency, BMS' license will survive for six (6) months. Additionally, in the event of our material breach, BMS may elect to have the license agreement continue, with all future payments under that license agreement reduced by 50%.

Patent License Agreement with the University of Texas at Austin

In March 2015, we entered into an exclusive patent license agreement, or the License Agreement, with the University of Texas at Austin, or the University, pursuant to which the University granted us a worldwide license to certain technology and IP rights relating to a kynurenine-degrading enzyme, which we are developing as IK-412.

Pursuant to the License Agreement, and we pay a license fee of approximately $40,000 per year. We will also be obligated to make milestone payments to the University of up to an aggregate of $0.7 million upon meeting certain development milestones and up to an aggregate of $4.0 million upon meeting certain regulatory milestones, as well as low single digit royalties based on worldwide annual net sales on any licensed product, subject to specified reductions.

We will be obligated to continue to pay royalties on a licensed product-by-licensed product and country-by-country basis, as long as there is an existing valid claim under the licensed patents in such country. Please see "Business—Intellectual Property—IK-412," for additional information concerning the intellectual property related to the License Agreement.

The term of the Licensed Agreement expires on licensed product-by-licensed product and country-by-country basis until the expiration of all royalty terms, unless earlier terminated as described below.

The License Agreement may be terminated (i) by either party if the other party remains in breach of the license agreement following a cure period to remedy the breach, (ii) by us at will, (iii) by the University, in its entirety, upon our bankruptcy or insolvency, or (iv) by the University, in its entirety, if we challenge a patent licensed by the University to us under the license agreement.

License Agreement with AskAt

In connection of our acquisition of Arrys Therapeutics, Inc., or Arrys, in December 2018, we acquired in-process research and development assets related to AskAt Inc.'s, or AskAt, selective EP4 antagonists, namely IK-007 which we are currently developing in a Phase 1b clinical trial in MSS CRC and IK-008 which is a backup molecule, based on the intellectual property associated with a License Agreement, or the AskAt Agreement, between Arrys and AskAt, dated December 14, 2017. Pursuant to the AskAt Agreement, AskAt granted Arrys an exclusive license worldwide, other than China and Taiwan, to the research and development of the licensed compounds in human diseases. AskAt controls the prosecution and maintenance of all intellectual property rights pertaining the licensed technology.

Pursuant to the AskAt Agreement, we are obligated to make milestone payments to AskAt, including up to $4.0 million upon the achievement of certain clinical development milestones, as well as milestone payments of up to an aggregate of $600 million upon the achievement of certain worldwide annual net sales milestones. We are also obligated to pay low single-digit royalties on annual worldwide net sales on a licensed-product-by-licensed product and country-by-country basis, for the period beginning upon the first commercial sale in such country and ending upon the later of (i) 10 years from the first commercial sale in such country, or (ii) the expiration of valid claims in such country. Please see "Business—Intellectual Property—EP4 Antagonist Patent Families," for additional information concerning the intellectual property related to the AskAt Agreement.

The term of the AskAt Agreement expires on licensed product-by-licensed product and country-by-country basis upon the expiration of the royalty term for such licensed product, unless earlier terminated as described below.

The License Agreement may be terminated (i) by either party if the other party remains in material breach of the license agreement following a cure period to remedy the breach, (ii) by us for convenience upon 180 days' notice or (iii) by either party, in its entirety, upon bankruptcy or insolvency of the other party.

Intellectual Property

We seek to protect the intellectual property and proprietary technology that we consider important to our business, including by pursuing patent applications that cover our product candidates and future products, and methods of using the same, as well as any other relevant inventions and improvements that we believe to be commercially important to the development of our business. We also rely on trade secrets, know-how and continuing technological innovation to develop and maintain our proprietary and intellectual property position. Our commercial success depends, in part, on our ability to obtain, maintain, enforce and protect our intellectual property and other proprietary rights for the technology, inventions and improvements we consider important to our business, and to defend any patents we may own or in-license in the future, prevent others from infringing any patents we may own or in-license in the future, preserve the confidentiality of our trade secrets, and operate without infringing, misappropriating or otherwise violating the valid and enforceable patents and proprietary rights of third parties.

Patent Protection

As with other biotechnology and pharmaceutical companies, our ability to maintain and solidify our proprietary and intellectual property position for our product candidates, future products, and proprietary technologies will depend on our success in obtaining effective patent claims and enforcing those claims if granted. However, our pending patent applications, and any patent applications that we may in the future file or license from third parties, may not result in the issuance of patents and any issued patents we may obtain do not guarantee us the right to practice our technology or commercialize our product candidates. We also cannot predict the breadth of claims that may be allowed or enforced in any patents we may own or in-license in the future. Any issued patents that we may own or in-license in the future may be challenged, invalidated, circumvented, or have the scope of their claims narrowed. In addition, because of the extensive time required for clinical development and regulatory review of a product candidate we may develop, it is possible that, before any of our product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby limiting the protection such patent would afford the respective product and any competitive advantage such patent may provide.

The term of individual patents depends upon the date of filing of the patent application, the date of patent issuance, and the legal term of patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the earliest filing date of a non-provisional patent application. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier expiring patent. The term of a patent claiming a new drug product may also be eligible for a limited patent term extension when FDA approval is granted, provided statutory and regulatory requirements are met. The term extension period granted on a patent covering a product is typically one-half the time between the effective date of a clinical investigation involving human beings is begun and the submission date of an application, plus the time between the submission date of an application and the ultimate approval date. The term extension period cannot be longer than five years, and the term extension period may not extend the patent term beyond 14 years from the date of FDA approval. Only one patent applicable to an approved product is eligible for the extension, and only those claims covering the approved product, a method for using it, or a method for manufacturing it may be extended. Additionally, the application for the extension must be submitted prior to the expiration of the patent in question. A patent that covers multiple products for which

approval is sought can only be extended in connection with one of the approvals. The United States Patent and Trademark Office reviews and approves the application for any patent term extension in consultation with the FDA. In the future, if our product candidates receive approval by the FDA, we expect to apply for patent term extensions on any issued patents covering those products, depending upon the length of the clinical studies for each product and other factors. There can be no assurance that our pending patent applications, and any patent applications that we may in the future file or license from third parties, will issue or that we will benefit from any patent term extension or favorable adjustments to the terms of any patents we may own or in-license in the future. In addition, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent. Patent term may be inadequate to protect our competitive position on our products for an adequate amount of time.

As of February 7, 2021, our overall patent portfolio includes forty-five (45) patent families comprising issued patents, pending U.S. and PCT International patent applications, and pending patent applications in foreign jurisdictions. The patents and patent applications have claims relating to our current product candidates, methods of use and manufacturing processes, as well as claims directed to potential future products and developments.

TEAD Inhibitor Patent Families

As of February 7, 2021, we solely own nine patent families related to TEAD inhibitors and degraders, compositions thereof, and methods of their use. Any U.S. or foreign patents that issue from these patent families, if granted and all appropriate maintenance fees paid, are expected to expire from 2040 to 2042, not including any patent term adjustment, patent term extension, or supplementary protection certificate (SPC). The non-provisional patent families are described in more detail below.

- TEAD patent family one is directed to TEAD inhibitors, compositions thereof, and methods of their use. As of February 7, 2021, TEAD patent family one contains a pending U.S. application, a pending PCT application, and pending applications in foreign jurisdictions, such as Argentina and Taiwan. Any U.S. or foreign patents that issue from TEAD patent family one, if granted and all appropriate maintenance fees paid, are expected to expire in 2040, not including any patent term adjustment, patent term extension, or SPC.
- TEAD patent family two is directed to TEAD inhibitors, compositions thereof, and methods of their use. As of February 7, 2021, TEAD patent family two contains a pending U.S. application, a pending PCT application, and pending applications in foreign jurisdictions, such as Argentina and Taiwan. Any U.S. or foreign patents that issue from TEAD patent family two, if granted and all appropriate maintenance fees paid, are expected to expire in 2040, not including any patent term adjustment, patent term extension, or SPC.

Our current lead TEAD inhibitor, IK-930, compositions thereof, and methods of the use, are covered by our solely owned pending U.S., PCT international, Taiwanese, and Argentinian patent applications that, if granted as patents and all appropriate maintenance fees paid, are expected to expire in 2040, not including any patent term adjustment, patent term extension, or supplementary protection certificate, or SPC.

ERK5 and RAS Signaling Pathway Program Patent Families

As of February 7, 2021, we exclusively own six patent families related to inhibitors targeting the ERK5 and RAS signaling pathway, compositions thereof, and methods of their use, along with one patent family relating to methods for identifying cancer patients to be treated with an ERK5 inhibitor. Each patent family contains one U.S. provisional patent application. Any U.S. or foreign patents that issue from these patent families, if granted and all appropriate maintenance fees paid, are expected to expire in 2041, not including any patent term adjustment, patent term extension, or SPC.

EP4 Antagonists Patent Families

As of February 7, 2021, we have an exclusive license to seven patent families directed to EP4 antagonists, crystal forms thereof, compositions thereof, and methods of their use. The U.S. and foreign patents that have issued in these patent families and any further U.S. or foreign patents that may issue from these patent families, if granted and all appropriate maintenance fees paid, are expected to expire from 2021 to 2036, not including any patent term adjustment, patent term extension, or SPC. These patent families are described in more detail below.

- EP4 in-licensed patent family one is directed to EP4 antagonists, compositions thereof, and methods of their use. As of February 7, 2021, EP4 in-licensed patent family one contains three U.S. patents and patents in foreign jurisdictions such as Europe, Japan, Canada, India, South Korea, and Mexico. These U.S. and foreign patents in EP4 in-licensed patent family one, if all appropriate maintenance fees paid, are expected to expire in 2021, not including any patent term adjustment, patent term extension, or SPC.
- EP4 in-licensed patent family two is directed to crystal forms of EP4 antagonists, compositions thereof, and methods of their use. As of February 7, 2021, EP4 in-licensed patent family two contains one U.S. patent, patents in foreign jurisdictions, such as Europe, Japan, Canada, South Korea, and Mexico, and pending applications in foreign jurisdictions, such as India. These U.S. and foreign patents and any further foreign patents that may issue from EP4 in-licensed patent family two, if granted and all appropriate maintenance fees paid, are expected to expire in 2026, not including any patent term adjustment, patent term extension, or SPC.
- EP4 in-licensed patent family three is directed to EP4 antagonists, compositions thereof, and methods of their use. As of February 7, 2021, EP4 in-licensed patent family three contains one U.S. patent, patents in foreign jurisdictions, such as Europe, Japan, Canada, China, South Korea, and Mexico, and a pending application in Brazil. These U.S. and foreign patents and any further foreign patents that may issue from EP4 in-licensed patent family three, if granted and all appropriate maintenance fees paid, are expected to expire in 2024, not including any patent term adjustment, patent term extension, or SPC.
- EP4 in-licensed patent family four is directed to use of certain EP4 antagonists for treating cancer. As of February 7, 2021, EP4 in-licensed patent family four contains three U.S. patents, patents in foreign jurisdictions, such as Europe, Japan, Canada, South Korea, and Mexico, and pending applications in U.S. and foreign jurisdictions such as Europe. These U.S. and foreign patents and any further U.S. or foreign patents that may issue from EP4 in-licensed patent family four, if granted and all appropriate maintenance fees paid, are expected to expire in 2030, not including any patent term adjustment, patent term extension, or SPC.
- EP4 in-licensed patent family five is directed to use of certain EP4 antagonists for treating NASH-associated liver cancer. As of February 7, 2021, EP4 in-licensed patent family five contains two U.S. patents, patents in foreign jurisdictions such as Europe, Japan, and Canada, and pending applications in foreign jurisdictions, such as India and Mexico. These U.S. and foreign patents and any further foreign patents that may issue from EP4 in-licensed patent family five, if granted and all appropriate maintenance fees paid, are expected to expire in 2036, not including any patent term adjustment, patent term extension, or SPC.
- We have two additional EP4 in-licensed patent families directed to use of EP4 antagonists for (i) treating immune disease or allergy and (ii) treating cartilage disease. As of February 7, 2021, these EP4 in-licensed patent families contained three U.S. patents, patents in foreign jurisdictions such as Europe, Japan, Canada, South Korea, and Mexico, and pending applications in foreign jurisdictions such as Japan, Europe, Canada, India, and South Korea These U.S. and foreign patents and any further foreign patents that may issue from these EP4 in-licensed patent families, if granted and all appropriate maintenance fees paid, are expected to expire in 2031 and 2034, respectively, not including any patent term adjustment, patent term extension, or SPC.

As of February 7, 2021, we and AskAt Inc. jointly own three patent families directed to EP4 antagonist compositions, methods of making certain EP4 antagonists and their formulations, and methods of their use. Any U.S. or foreign patents that issue from these patent families, if granted and all appropriate maintenance fees paid, are expected to expire in 2039, not including any patent term adjustment, patent term extension, or SPC. These patent families are described in more detail below.

- EP4 jointly-owned patent family one is directed to use of EP4 antagonists in combination with an immuno-oncology agent for treating cancer. As of February 7, 2021, EP4 jointly-owned patent family one contains a pending U.S. application, a pending PCT application, and pending applications in foreign jurisdictions, such as Europe, Japan, China, Australia, and Canada. Any U.S. or foreign patents that issue from EP4 jointly-owned patent family one, if granted and all appropriate maintenance fees paid, are expected to expire in 2039, not including any patent term adjustment, patent term extension, or SPC.
- EP4 jointly-owned patent family two is directed to methods of making certain EP4 antagonists and the compositions thereof. As of February 7, 2021, EP4 jointly-owned patent family two contains a pending U.S. application, a pending PCT application, and pending applications in foreign jurisdictions, such as Europe, Japan, China, Canada, and India. Any U.S. or foreign patents that issue from EP4 jointly-owned patent family two, if granted and all appropriate maintenance fees paid, are expected to expire in 2039, not including any patent term adjustment, patent term extension, or SPC.
- EP4 jointly-owned patent family three is directed to certain EP4 antagonist formulations, and the methods of use thereof. As of February 7, 2021, EP4 jointly-owned patent family three contains a pending PCT application. Any U.S. or foreign patents that issue from EP4 jointly-owned patent family three, if granted and all appropriate maintenance fees paid, are expected to expire in 2039, not including any patent term adjustment, patent term extension, or SPC.

As of February 7, 2021, we solely own two patent families directed to EP4 antagonist salts and crystal forms, and methods of using EP4 antagonists. Any U.S. or foreign patents that issue from these patent families, if granted and all appropriate maintenance fees paid, are expected to expire from 2039 to 2041, not including any patent term adjustment, patent term extension, or SPC. These patent families are described in more detail below.

- EP4 solely-owned patent family one is directed to crystal forms of certain EP4 antagonists. As of February 7, 2021, EP4 solely-owned patent family one contains pending U.S. and European applications. Any U.S. or foreign patents that issue from EP4 jointly-owned patent family one, if granted and all appropriate maintenance fees paid, are expected to expire in 2039, not including any patent term adjustment, patent term extension, or SPC.
- EP4 solely-owned patent family two is directed to methods for selecting patients for EP4 antagonist treatment. As of February 7, 2021, EP4 solely-owned patent family two contains a pending U.S. provisional application. Any U.S. or foreign patents that issue from EP4 solely-owned patent family two, if granted and all appropriate maintenance fees paid, are expected to expire in 2041, not including any patent term adjustment, patent term extension, or SPC.

As of February 7, 2021, our current lead EP4 antagonist, IK-007, salts and crystal forms thereof, compositions thereof, and methods of the use, are covered by select patents described above. These select patents include over ten (10) issued U.S. patents, multiple pending U.S. and PCT international patent applications, and issued patents and pending patent applications in foreign jurisdictions that, if granted and all appropriate maintenance fees paid, are expected to expire from 2021 to 2041, not including any patent term adjustment, patent term extension, or SPC, as described in more detail above.

AHR Antagonists Patent Families

As of February 7, 2021, we solely own nine patent families related to AHR antagonists, compositions thereof, and methods of their use. U.S. patents that have issued in these patent families and any further U.S. or foreign

patents that issue from these patent families, if granted and all appropriate maintenance fees paid, are expected to expire from 2038 to 2041, not including any patent term adjustment, patent term extension, or SPC. The non-provisional patent families are described in more detail below.

- AHR antagonists patent family one is directed to AHR antagonists, compositions thereof, and methods of their use. As of February 7, 2021, AHR antagonists patent family one contains two U.S. patents, and pending applications in the U.S. and foreign jurisdictions, such as Europe, Japan, China, Australia, Canada, India, South Korea, and Mexico. These U.S. patents and any further U.S. or foreign patents that may issue from AHR antagonists patent family one, if granted and all appropriate maintenance fees paid, are expected to expire in 2038, not including any patent term adjustment, patent term extension, or SPC.
- AHR antagonists patent family two is directed to AHR antagonists, compositions thereof, and methods of their use. As of February 7, 2021, AHR antagonists patent family two contains one U.S. patent, and pending applications in the U.S. and foreign jurisdictions, such as Europe, Japan, China, Australia, Canada, India, South Korea, and Mexico. This U.S. patent and any further U.S. or foreign patents that may issue from AHR antagonists patent family two, if granted and all appropriate maintenance fees paid, are expected to expire in 2038, not including any patent term adjustment, patent term extension, or SPC.
- AHR antagonists patent family three is directed to AHR antagonists, compositions thereof, and methods of their use. As of February 7, 2021, AHR antagonists patent family three contains a pending PCT application. Any U.S. or foreign patents that issue from AHR antagonists patent family three, if granted and all appropriate maintenance fees paid, are expected to expire in 2039, not including any patent term adjustment, patent term extension, or SPC.
- AHR antagonists patent family four is directed to crystal forms of certain AHR antagonists, compositions thereof, and methods of their use. As of February 7, 2021, AHR antagonists patent family four contains a pending U.S. application and a pending PCT application. Any U.S. or foreign patents that issue from AHR antagonists patent family four, if granted and all appropriate maintenance fees paid, are expected to expire in 2040, not including any patent term adjustment, patent term extension, or SPC.
- AHR antagonists patent family five is directed to certain AHR antagonist formulations, and methods of their use. As of February 7, 2021, AHR antagonists patent family five contains a pending PCT application. Any U.S. or foreign patents that issue from AHR antagonists patent family five, if granted and all appropriate maintenance fees paid, are expected to expire in 2040, not including any patent term adjustment, patent term extension, or SPC.
- AHR antagonists patent family six is directed to methods of selecting patients for AHR antagonist treatment. As of February 7, 2021, AHR antagonists patent family six contains a pending PCT application. Any U.S. or foreign patents that issue from AHR antagonists patent family six, if granted and all appropriate maintenance fees paid, are expected to expire in 2041, not including any patent term adjustment, patent term extension, or SPC.

As of February 7, 2021, our current lead AHR antagonist IK-175, salts and crystal forms thereof, compositions thereof, and methods of the use, are covered by our solely owned two issued U.S. patents, multiple pending U.S. and PCT international patent applications, and pending patent applications in Europe, Japan, Australia, Canada, China, and other foreign jurisdictions, all of which are described above where, if granted and all appropriate maintenance fees paid, are expected to expire from 2038 to 2041, not including any patent term adjustment, patent term extension, or SPC.

IK-412

We own and exclusively license patents and patent applications related to our IK-412 program. Our in-licensed patent portfolio related to this program includes three patent families that include patents and patent applications covering our IK-412 biologic drug product as a composition of matter and methods of using the same, alone or in

combination with other therapeutic agents. The three exclusively licensed patent families are licensed from the University of Texas at Austin.

The first in-licensed patent family includes two issued patents in the U.S., which are projected to expire in 2034 and 2035, respectively, excluding any patent term extensions, if applicable. The first in-licensed patent family also includes issued patents in Europe, Hong Kong, Australia, Israel, Japan, and South Africa, and such patents are expected to expire in 2034, excluding any patent term extensions, if applicable. Within this first in-licensed patent family, patent applications are pending in the U.S., Australia, Brazil, Canada, China, Hong Kong, Europe, Israel, India, Japan, Korea, New Zealand, and South Africa.

The second in-licensed patent family includes one issued patent in the U.S., which is projected to expire in 2035, excluding any patent term extensions, if applicable. Within this second in-licensed patent family, patent applications are pending in the U.S., Canada, Europe, Israel, and Japan.

The third in-licensed patent family includes patent applications in the U.S., Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Eurasian Patent Organization, Hong Kong, Europe, Israel, India, Japan, Korea, Mexico, New Zealand, Singapore, Thailand, Taiwan, and South Africa. Patents that issue from these applications are projected to expire in 2039, excluding any patent term adjustments or extensions, if applicable.

We also solely own patent applications related to our IK-412 program. The company-owned patent portfolio related to this program consists of one patent family that currently includes one U.S. patent application and one PCT international patent application covering our IK-412 biologic drug product as a composition of matter and methods of using the same, alone or in combination with other therapeutic agents. Patents issuing from the company-owned patent family are projected to expire in 2040, excluding any patent term adjustments or extensions, if applicable.

Prosecution is a lengthy process, during which the scope of the claims initially submitted for examination by the USPTO or other foreign jurisdiction are often significantly narrowed by the time they issue, if they issue at all. Any of our pending PCT patent applications are not eligible to become issued patents until, among other things, we file national stage patent applications within 30 months in the countries in which we seek patent protection. If we do not timely file any national stage patent applications, we may lose our priority date with respect to our PCT patent applications and any patent protection on the inventions disclosed in such PCT patent applications. Our provisional patent applications may never result in issued patents and are not eligible to become issued patents until, among other things, we file a non-provisional patent application and/or PCT patent application within 12 months of filing the related provisional patent application. If we do not timely file non-provisional patent applications, we may lose our priority date with respect to our provisional patent applications and any patent protection on the inventions disclosed in our provisional patent applications. While we intend to timely file non-provisional and national stage patent applications relating to our provisional and PCT patent applications, we cannot predict whether any of our current or future patent applications will issue as patents. If we do not successfully obtain patent protection, or, if the patent protection scope is not sufficiently broad, we may be unable to prevent others from using our proprietary technology or from developing or commercializing technology and products similar or identical to ours or other competing products and technologies.

Trade Secret Protection

In addition to patents, we rely on unpatented trade secrets, know-how and continuing technological innovation to develop and maintain our competitive position. However, trade secrets and confidential know-how are difficult to protect. In particular, we anticipate that with respect to the building of our compound library, our trade secrets and know-how will over time be disseminated within the industry through independent development and public presentations describing the methodology. We seek to protect our proprietary information, in part, by executing confidentiality agreements with our collaborators and scientific advisors and non-competition, non-solicitation, confidentiality and invention assignment agreements with our employees and consultants. We have also executed

agreements requiring assignment of inventions with selected consultants, scientific advisors and collaborators. The confidentiality agreements we enter into are designed to protect our proprietary information and the agreements or clauses requiring assignment of inventions to us are designed to grant us ownership of technologies that are developed through our relationship with the respective counterparty. We cannot guarantee that we will have executed such agreements with all applicable employees and contractors, or that these agreements will afford us adequate protection of our intellectual property and proprietary information rights. In addition, our trade secrets and/or confidential know-how may become known or be independently developed by a third party or misused by any collaborator to whom we disclose such information. These agreements may also be breached, and we may not have an adequate remedy for any such breach. Despite any measures taken to protect our intellectual property, unauthorized parties may attempt to copy aspects of our products or to obtain or use information that we regard as proprietary. Although we take steps to protect our proprietary information, third parties may independently develop the same or similar proprietary information or may otherwise gain access to our proprietary information. As a result, we may be unable to meaningfully protect our trade secrets and proprietary information. For more information regarding the risks related to our intellectual property, please see “Risk Factors—Risks Related to our Intellectual Property.”

Trademark Protection

We have filed for and obtained Notices of Allowance for trademark protection with the U.S. Patent and Trademark Office for the IKENA and IKENA ONCOLOGY word marks for goods and services.

Commercialization

Subject to receiving marketing approvals, we expect to commence commercialization activities by building a focused sales and marketing organization in the United States to sell our products. We believe that such an organization will be able to address the community of oncologists who are the key specialists in treating the patient populations for which our product candidates are being developed. The responsibilities of the marketing organization would include developing educational initiatives with respect to approved products and establishing relationships with researchers and practitioners in relevant fields of medicine. Outside the United States, we expect to enter into distribution and other marketing arrangements with third parties for any of our product candidates that obtain marketing approval.

Manufacturing

We do not have any manufacturing facilities. We currently rely, and expect to continue to rely, on third parties for the manufacture of our product candidates undergoing preclinical testing, as well as for clinical testing and commercial manufacture if our product candidates receive marketing approval.

All of our drug candidates are small molecules and are manufactured in synthetic processes from available starting materials. The chemistry appears amenable to scale-up and does not currently require unusual equipment in the manufacturing process. We expect to continue to develop product candidates that can be produced cost-effectively at contract manufacturing facilities.

If necessary, we expect to rely on third parties for the manufacture of companion diagnostics for our products, which are assays or tests to identify an appropriate patient population. Depending on the technology solutions we choose, we may rely on multiple third parties to manufacture and sell a single test.

Governmental Regulation

The FDA and other regulatory authorities at federal, state and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, recordkeeping, approval,

advertising, promotion, marketing, post-approval monitoring and post-approval reporting of drugs and biologics. We, along with our vendors, contract research organizations, or CROs, clinical investigators and contract manufacturing organizations, or CMOs will be required to navigate the various preclinical, clinical, manufacturing and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval of our product candidates. The process of obtaining regulatory approvals of drugs and biologics and ensuring subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources.

In the United States, where we are initially focusing our drug development, the FDA regulates drug products under the Federal Food, Drug, and Cosmetic Act, or FD&C Act, and biologics under the FD&C Act and the Public Health Service Act, or PHSA, as amended, their implementing regulations. Both drugs and biologics are also subject to other federal, state and local statutes and regulations. If we fail to comply with applicable FDA or other requirements at any time with respect to product development, clinical testing, approval or any other regulatory requirements relating to product manufacture, processing, handling, storage, quality control, safety, marketing, advertising, promotion, packaging, labeling, export, import, distribution, or sale, we may become subject to administrative or judicial sanctions or other legal consequences. These sanctions or consequences could include, among other things, the FDA's refusal to approve pending applications, issuance of clinical holds for ongoing studies, suspension or revocation of approved applications, warning or untitled letters, product withdrawals or recalls, product seizures, relabeling or repackaging, total or partial suspensions of manufacturing or distribution, injunctions, fines, civil penalties or criminal prosecution.

Our product candidates must be approved for therapeutic indications by the FDA before they may be marketed in the United States. For drug product candidates regulated under the FD&C Act, FDA must approve a New Drug Application, or NDA. For biologic product candidates regulated under the FD&C Act and PHSA, FDA must approve a Biologics License Application, or BLA. The process is similar and generally involves the following:

- completion of extensive preclinical studies in accordance with applicable regulations, including studies conducted in accordance with good laboratory practice, or GLP, requirements;
- completion of the manufacture, under current Good Manufacturing Practices, or cGMP, conditions, of the drug substance and drug product that the sponsor intends to use in human clinical trials along with required analytical and stability testing;
- submission to the FDA of an investigational new drug application, or IND, which must become effective before clinical trials may begin and must be updated annually and when certain changes are made;
- approval by an institutional review board, or IRB, or independent ethics committee at each clinical trial site before each trial may be initiated;
- performance of adequate and well-controlled clinical trials in accordance with applicable IND regulations, good clinical practice, or GCP, requirements and other clinical trial-related regulations to establish the safety and efficacy of the investigational product for each proposed indication;
- preparation and submission to the FDA of an NDA or BLA;
- a determination by the FDA within 60 days of its receipt of an NDA or BLA to file the application for review;
- satisfactory completion of one or more FDA pre-approval or pre-license inspections of the manufacturing facility or facilities where the drug will be produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the drug or biological product's identity, strength, quality and purity;
- satisfactory completion of FDA audit of the clinical trial sites that generated the data in support of the NDA;

- payment of user fees for FDA review of the NDA or BLA; and
- FDA review and approval of the NDA or BLA, including, where applicable, consideration of the views of any FDA advisory committee, prior to any commercial marketing or sale of the drug in the United States.

Preclinical studies and clinical trials for drugs and biologics

Before testing any drug or biologic in humans, the product candidate must undergo rigorous preclinical testing. Preclinical studies include laboratory evaluations of product chemistry, formulation and stability, as well as *in vitro* and animal studies to assess safety and in some cases to establish the rationale for therapeutic use. The conduct of preclinical studies is subject to federal and state regulation and requirements, including GLP requirements for safety/toxicology studies. The results of the preclinical studies, together with manufacturing information and analytical data, must be submitted to the FDA as part of an IND.

An IND is a request for authorization from the FDA to administer an investigational product to humans and must become effective before clinical trials may begin. The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical studies. The IND also includes the results of animal and *in vitro* studies assessing the toxicology, pharmacokinetics, pharmacology, and pharmacodynamic characteristics of the product; chemistry, manufacturing, and controls information; and any available human data or literature to support the use of the investigational product. Some long-term preclinical testing may continue after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks, and imposes a full or partial clinical hold. FDA must notify the sponsor of the grounds for the hold and any identified deficiencies must be resolved before the clinical trial can begin. Submission of an IND may result in the FDA not allowing clinical trials to commence or not allowing clinical trials to commence on the terms originally specified in the IND. A clinical hold can also be imposed once a trial has already begun, thereby halting the trial until the deficiencies articulated by FDA are corrected.

The clinical stage of development involves the administration of the product candidate to healthy volunteers or patients under the supervision of qualified investigators, who generally are physicians not employed by or under the trial sponsor's control, in accordance with GCP requirements, which include the requirements that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria and the parameters and criteria to be used in monitoring safety and evaluating effectiveness. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Furthermore, each clinical trial must be reviewed and approved by an IRB for each institution at which the clinical trial will be conducted to ensure that the risks to individuals participating in the clinical trials are minimized and are reasonable compared to the anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. The FDA, the IRB, or the sponsor may suspend or discontinue a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk. There also are requirements governing the reporting of ongoing clinical trials and completed clinical trials to public registries. Information about clinical trials, including results for clinical trials other than Phase 1 investigations, must be submitted within specific timeframes for publication on www.ClinicalTrials.gov, a clinical trials database maintained by the National Institutes of Health.

A sponsor who wishes to conduct a clinical trial outside of the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. If a foreign clinical trial is not conducted under an IND, FDA will nevertheless accept the results of the study in support of an NDA if the study was conducted in accordance with GCP requirements, and the FDA is able to validate the data through an onsite inspection if deemed necessary.

Clinical trials to evaluate therapeutic indications to support NDAs for marketing approval are typically conducted in three sequential phases, which may overlap.

- *Phase 1*—Phase 1 clinical trials involve initial introduction of the investigational product in a limited population of healthy human volunteers or patients with the target disease or condition. These studies are typically designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the investigational product in humans, excretion the side effects associated with increasing doses, and, if possible, to gain early evidence of effectiveness.
- *Phase 2*—Phase 2 clinical trials typically involve administration of the investigational product to a limited patient population with a specified disease or condition to evaluate the drug's potential efficacy, to determine the optimal dosages and dosing schedule and to identify possible adverse side effects and safety risks.
- *Phase 3*—Phase 3 clinical trials typically involve administration of the investigational product to an expanded patient population to further evaluate dosage, to provide statistically significant evidence of clinical efficacy and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the investigational product and to provide an adequate basis for product approval and physician labeling. Generally, two adequate and well-controlled Phase 3 trials are required by the FDA for approval of an NDA or BLA.

In August 2018, the FDA released a draft guidance entitled "Expansion Cohorts: Use in First-In-Human Clinical Trials to Expedite Development of Oncology Drugs and Biologics," which outlines how drug developers can utilize an adaptive trial design commonly referred to as a seamless trial design in early stages of oncology drug development (i.e., the first-in-human clinical trial) to compress the traditional three phases of trials into one continuous trial called an expansion cohort trial. Information to support the design of individual expansion cohorts are included in IND applications and assessed by FDA. Expansion cohort trials can potentially bring efficiency to drug development and reduce development costs and time.

Post-approval trials, sometimes referred to as Phase 4 clinical trials or post-marketing studies, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication and are commonly intended to generate additional safety data regarding use of the product in a clinical setting. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials as a condition of NDA or BLA approval.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA. Written IND safety reports must be submitted to the FDA and the investigators fifteen days after the trial sponsor determines the information qualifies for reporting for serious and unexpected suspected adverse events, findings from other studies or animal or *in vitro* testing that suggest a significant risk for human volunteers and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must also notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction as soon as possible but in no case later than seven calendar days after the sponsor's initial receipt of the information.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the product candidate and finalize a process for manufacturing the drug product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and manufacturers must develop, among other things, methods for testing the identity, strength, quality and purity of the final drug product. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. marketing approval for drugs and biologics

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA or BLA package requesting approval to market the product for one or more indications. An NDA is a request for approval to market a new drug for one or more specified indications and must contain proof of the drug's safety and efficacy for the requested indications. A BLA is a request for approval to market a new biologic for one or more specified indications and must contain proof of the biologic's safety, purity and potency for the requested indications. The marketing application is required to include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls, and proposed labeling, among other things. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a product's use or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational drug, or the safety, purity and potency of the investigational biologic, to the satisfaction of the FDA. FDA must approve an NDA or BLA before a drug or biologic may be marketed in the United States.

The FDA reviews all submitted NDAs and BLAs to ensure they are sufficiently complete to permit substantive review before it accepts them for filing and may request additional information rather than accepting the NDA or BLA for filing. The FDA must make a decision on accepting an NDA or BLA for filing within 60 days of receipt, and such decision could include a refusal to file by the FDA. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the NDA or BLA. The FDA reviews an NDA or BLA to determine, among other things, whether the product is safe and effective for the indications sought and whether the facility in which it is manufactured, processed, packaged or held meets standards designed, including cGMP requirements, designed to assure and preserve the product's continued identity, strength, quality and purity. Under the goals and polices agreed to by the FDA under the Prescription Drug User Fee Act, or PDUFA, the FDA targets ten months, from the filing date, in which to complete its initial review of a new molecular entity NDA or BLA and respond to the applicant, and six months from the filing date of a new molecular entity NDA or BLA for priority review. The FDA does not always meet its PDUFA goal dates for standard or priority NDAs or BLAs, and the review process is often extended by FDA requests for additional information or clarification.

Further, under PDUFA, as amended, each NDA or BLA must be accompanied by a substantial user fee. The FDA adjusts the PDUFA user fees on an annual basis. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on NDAs or BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

The FDA also may require submission of a Risk Evaluation and Mitigation Strategy, or REMS, if it believes that a risk evaluation and mitigation strategy is necessary to ensure that the benefits of the drug outweigh its risks. A REMS can include use of risk evaluation and mitigation strategies like medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, special monitoring or other risk-minimization tools.

The FDA may refer an application for a novel drug or biologic to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, which reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA or BLA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes

and facilities are in compliance with cGMP requirements and are adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA or BLA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP and other requirements and the integrity of the clinical data submitted to the FDA.

After evaluating the NDA or BLA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a Complete Response Letter. A Complete Response Letter indicates that the review cycle of the application is complete and the application is not ready for approval. A Complete Response Letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA or BLA, except that where the FDA determines that the data supporting the application are inadequate to support approval, the FDA may issue the Complete Response Letter without first conducting required inspections, testing submitted product lots, and/or reviewing proposed labeling. In issuing the Complete Response Letter, the FDA may require additional clinical or preclinical testing or recommend other actions, such as requests for additional information or clarification, that the applicant might take in order for the FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications.

Even if the FDA approves a product, depending on the specific risk(s) to be addressed it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a product's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Orphan drug designation and exclusivity

Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug or biologic intended to treat a rare disease or condition, which is a disease or condition with either a patient population of fewer than 200,000 individuals in the United States, or a patient population greater than 200,000 individuals in the United States when there is no reasonable expectation that the cost of developing and making the product available in the United States for the disease or condition will be recovered from sales of the product. Orphan drug designation must be requested before submitting an NDA or BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process, though companies developing orphan products are eligible for certain incentives, including tax credits for qualified clinical testing and waiver of application fees.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to a seven-year period of marketing exclusivity during which the FDA may not approve any other applications to market the same therapeutic agent for the same indication, except in limited circumstances, such as a subsequent product's showing of clinical superiority over the product with orphan exclusivity or where the original applicant cannot produce sufficient quantities of product. Competitors, however, may receive approval of different therapeutic agents for the indication for which the orphan product has exclusivity or obtain approval for the same therapeutic agent for a different indication than that for which the orphan product has exclusivity. Orphan product exclusivity could block the approval of

one of our products for seven years if a competitor obtains approval for the same therapeutic agent for the same indication before we do, unless we are able to demonstrate that our product is clinically superior. If an orphan designated product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan exclusivity. Further, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or the manufacturer of the approved product is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Expedited development and review programs for drugs and biologics

The FDA maintains several programs intended to facilitate and expedite development and review of new drugs and biologics to address unmet medical needs in the treatment of serious or life-threatening diseases or conditions. These programs include Fast Track designation, Breakthrough Therapy designation, Priority Review and Accelerated Approval, and the purpose of these programs is to either expedite the development or review of important new drugs and biologics to get them to patients more quickly than standard FDA review timelines typically permit.

A new drug or biologic is eligible for Fast Track designation if it is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address unmet medical needs for such disease or condition. Fast track designation applies to the combination of the product candidate and the specific indication for which it is being studied. Fast Track designation provides increased opportunities for sponsor interactions with the FDA during preclinical and clinical development, in addition to the potential for rolling review once a marketing application is filed. Rolling review means that the FDA may review portions of the marketing application before the sponsor submits the complete application.

In addition, a new drug or biologic may be eligible for Breakthrough Therapy designation if it is intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug or biologic, alone or in combination with one or more other drugs or biologics, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Breakthrough Therapy designation provides all the features of Fast Track designation in addition to intensive guidance on an efficient product development program beginning as early as Phase 1, and FDA organizational commitment to expedited development, including involvement of senior managers and experienced review staff in a cross-disciplinary review, where appropriate.

Any product submitted to the FDA for approval, including a product with Fast Track or Breakthrough Therapy designation, may also be eligible for additional FDA programs intended to expedite the review and approval process, including Priority Review designation and Accelerated Approval. A product is eligible for Priority Review, once an NDA or BLA is submitted, if the product that is the subject of the marketing application has the potential to provide a significant improvement in safety or effectiveness in the treatment, diagnosis or prevention of a serious disease or condition. Under priority review, the FDA's goal date to take action on the marketing application is six months compared to ten months for a standard review. Products are eligible for Accelerated Approval if they can be shown to have an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or an effect on a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, which is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments.

Accelerated Approval is usually contingent on a sponsor's agreement to conduct, in a diligent manner, adequate and well-controlled additional post-approval confirmatory studies to verify and describe the product's clinical benefit. The FDA may withdraw approval of a drug or an indication approved under Accelerated Approval if, for example, the confirmatory trial fails to verify the predicted clinical benefit of the product. In addition, the FDA generally requires, as a condition for Accelerated Approval, that all advertising and promotional materials intended for dissemination or publication within 120 days of marketing approval be submitted to the agency for review during

the pre-approval review period. After the 120-day period has passed, all advertising and promotional materials must be submitted at least 30 days prior to the intended time of initial dissemination or publication.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or the time period for FDA review or approval may not be shortened. Furthermore, Fast Track designation, Breakthrough Therapy designation, Priority Review and Accelerated Approval do not change the scientific or medical standards for approval or the quality of evidence necessary to support approval, though they may expedite the development or review process.

Pediatric information and pediatric exclusivity

Under the Pediatric Research Equity Act, or PREA, as amended, certain NDAs and BLAs and certain NDA and BLA supplements must contain data that can be used to assess the safety and efficacy of the product candidate for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of pediatric data or full or partial waivers. The FD&C Act requires that a sponsor who is planning to submit a marketing application for a product candidate that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, or PSP, within 60 days of an end-of-Phase 2 meeting or, if there is no such meeting, as early as practicable before the initiation of the Phase 3 or Phase 2/3 study. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA and the sponsor must reach an agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical trials and/or other clinical development programs. Unless otherwise required by regulation, PREA does not apply to a drug or biologic for an indication for which orphan designation has been granted, except that PREA will apply to an original NDA or BLA for a new active ingredient that is orphan-designated if the drug or biologic is a molecularly targeted cancer product intended for the treatment of an adult cancer and is directed at a molecular target that FDA determines to be substantially relevant to the growth or progression of a pediatric cancer.

A drug can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued “Written Request” for such a study.

U.S. post-approval requirements for drugs and biologics

Drugs and biologics manufactured or distributed pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, reporting of adverse experiences with the product, complying with promotion and advertising requirements, which include restrictions on promoting products for unapproved uses or patient populations (known as “off-label use”) and limitations on industry-sponsored scientific and educational activities. Although physicians may prescribe approved products for off-label uses, manufacturers may not market or promote such uses. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, including not only by company employees but also by agents of the company or those speaking on the company’s behalf, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including investigation by federal and state authorities. Failure to comply with these requirements can result in, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties, including liabilities under the False Claims Act where products are obtain reimbursement under federal health care programs. Promotional materials for approved drugs

and biologics must be submitted to the FDA in conjunction with their first use or first publication. Further, if there are any modifications to the drug or biologic, including changes in indications, labeling or manufacturing processes or facilities, the applicant may be required to submit and obtain FDA approval of a new NDA or BLA or NDA or BLA supplement, which may require the development of additional data or preclinical studies and clinical trials.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA or BLA. For example, the FDA may require post-market testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. In addition, manufacturers and their subcontractors involved in the manufacture and distribution of approved drugs and biologics are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMPs, which impose certain procedural and documentation requirements on sponsors and their CMOs. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting requirements upon us and any third party manufacturers that a sponsor may use. Accordingly, manufacturers must continue to expend time money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance. Failure to comply with statutory and regulatory requirements may subject a manufacturer to possible legal or regulatory action, such as warning letters, suspension of manufacturing, product seizures, injunctions, civil penalties or criminal prosecution. There is also a continuing, annual program user fee for any marketed product.

The FDA may withdraw approval of a product if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information, requirements for post-market studies or clinical trials to assess new safety risks, or imposition of distribution or other restrictions under a REMS. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- the issuance of safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about the product;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs; or mandated modification of promotional materials and labeling and issuance of corrective information.

Regulation of companion diagnostics

Companion diagnostics identify patients who are most likely to benefit from a particular therapeutic product; identify patients likely to be at increased risk for serious side effects as a result of treatment with a particular therapeutic product; or monitor response to treatment with a particular therapeutic product for the purpose of

adjusting treatment to achieve improved safety or effectiveness. Companion diagnostics are regulated as medical devices by the FDA. In the United States, the FD&C Act, and its implementing regulations, and other federal and state statutes and regulations govern, among other things, medical device design and development, preclinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, advertising and promotion, sales and distribution, export and import, and post-market surveillance. Unless an exemption or FDA exercise of enforcement discretion applies, diagnostic tests generally require marketing clearance or approval from the FDA prior to commercialization. The two primary types of FDA marketing authorization applicable to a medical device are clearance of a premarket notification, or 510(k), and approval of a premarket approval application, or PMA.

To obtain 510(k) clearance for a medical device, or for certain modifications to devices that have received 510(k) clearance, a manufacturer must submit a premarket notification demonstrating that the proposed device is substantially equivalent to a previously cleared 510(k) device or to a pre-amendment device that was in commercial distribution before May 28, 1976, or a predicate device, for which the FDA has not yet called for the submission of a PMA. In making a determination that the device is substantially equivalent to a predicate device, the FDA compares the proposed device to the predicate device and assesses whether the subject device is comparable to the predicate device with respect to intended use, technology, design and other features which could affect safety and effectiveness. If the FDA determines that the subject device is substantially equivalent to the predicate device, the subject device may be cleared for marketing. The 510(k) premarket notification pathway generally takes from three to twelve months from the date the application is completed, but can take significantly longer.

A PMA must be supported by valid scientific evidence, which typically requires extensive data, including technical, preclinical, clinical and manufacturing data, to demonstrate to the FDA's satisfaction the safety and effectiveness of the device. For diagnostic tests, a PMA typically includes data regarding analytical and clinical validation studies. As part of its review of the PMA, the FDA will conduct a pre-approval inspection of the manufacturing facility or facilities to ensure compliance with the quality system regulation, or QSR, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures. The FDA's review of an initial PMA is required by statute to take between six to ten months, although the process typically takes longer, and may require several years to complete. If the FDA evaluations of both the PMA and the manufacturing facilities are favorable, the FDA will either issue an approval letter or an approvable letter, which usually contains a number of conditions that must be met in order to secure the final approval of the PMA. If the FDA's evaluation of the PMA or manufacturing facilities is not favorable, the FDA will deny the approval of the PMA or issue a not approvable letter. A not approvable letter will outline the deficiencies in the application and, where practical, will identify what is necessary to make the PMA approvable. Once granted, PMA approval may be withdrawn by the FDA if compliance with post-approval requirements, conditions of approval or other regulatory standards is not maintained or problems are identified following initial marketing.

On July 31, 2014, the FDA issued a final guidance document addressing the development and approval process for "In Vitro Companion Diagnostic Devices." According to the guidance document, for novel therapeutic products that depend on the use of a diagnostic test and where the diagnostic device could be essential for the safe and effective use of the corresponding therapeutic product, the companion diagnostic device should be developed and approved or cleared contemporaneously with the therapeutic, although the FDA recognizes that there may be cases when contemporaneous development may not be possible. However, in cases where a drug cannot be used safely or effectively without the companion diagnostic, the FDA's guidance indicates it will generally not approve the drug without the approval or clearance of the diagnostic device. The FDA also issued a draft guidance in July 2016 setting forth the principles for co-development of an in vitro companion diagnostic device with a therapeutic product. The draft guidance describes principles to guide the development and contemporaneous marketing authorization for the therapeutic product and its corresponding *in vitro* companion diagnostic.

Once cleared or approved, the companion diagnostic device must adhere to post-marketing requirements including the requirements of the FDA's QSR, adverse event reporting, recalls and corrections along with

product marketing requirements and limitations. Like drug makers, companion diagnostic makers are subject to unannounced FDA inspections at any time during which the FDA will conduct an audit of the product(s) and the company's facilities for compliance with its authorities.

Other regulatory matters

Manufacturing, sales, promotion and other activities of product candidates following product approval, where applicable, or commercialization are also subject to regulation by numerous regulatory authorities in the United States in addition to the FDA, which may include the Centers for Medicare & Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services, the Department of Justice, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments and governmental agencies.

Other healthcare laws

Healthcare providers, physicians, and third-party payors will play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. Our business operations and any current or future arrangements with third-party payors, healthcare providers and physicians may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we develop, market, sell and distribute any drugs for which we obtain marketing approval. In the United States, these laws include, without limitation, state and federal anti-kickback, false claims, physician transparency, and patient data privacy and security laws and regulations, including but not limited to those described below.

- The federal Anti-Kickback Statute prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving or providing any remuneration (including any kickback, bribe, or certain rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid. A person or entity need not have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it in order to have committed a violation. Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs. In addition, the government may assert that a claim that includes items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act.
- The federal civil and criminal false claims laws, including the civil False Claims Act, or FCA, prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment or approval that are false, fictitious or fraudulent; knowingly making, using, or causing to be made or used, a false statement or record material to a false or fraudulent claim or obligation to pay or transmit money or property to the federal government; or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay money to the federal government. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. The FCA also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery. When an entity is determined to have violated the federal civil False Claims Act, the government may impose civil fines and penalties for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs.
- The federal civil monetary penalties laws impose civil fines for, among other things, the offering or transfer or remuneration to a Medicare or state healthcare program beneficiary, if the person knows or

should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies.

- The Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for knowingly and willfully executing a scheme, or attempting to execute a scheme, to defraud any healthcare benefit program, including private payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, or falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity may be found guilty of violating HIPAA without actual knowledge of the statute or specific intent to violate it.
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, impose, among other things, specified requirements on covered entities and their respective business associates relating to the privacy and security of individually identifiable health information including mandatory contractual terms and required implementation of technical safeguards of such information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates in some cases, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.
- The Physician Payments Sunshine Act, enacted as part of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the ACA, imposed new annual reporting requirements for certain manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, for certain payments and "transfers of value" provided to physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made in the previous year to certain non-physician providers such as physician assistants and nurse practitioners.
- Federal consumer protection and unfair competition laws broadly regulate marketplace activities and activities that potentially harm consumers.
- Analogous state and foreign laws and regulations, including, but not limited to, state anti-kickback and false claims laws, may be broader in scope than the provisions described above and may apply regardless of payor. Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and relevant federal government compliance guidance; require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers; restrict marketing practices or require disclosure of marketing expenditures and pricing information. State and foreign laws may govern the privacy and security of health information in some circumstances. These data privacy and security laws may differ from each other in significant ways and often are not pre-empted by HIPAA, which may complicate compliance efforts.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other

related governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, disgorgement, exclusion from government funded healthcare programs, such as Medicare and Medicaid, reputational harm, additional oversight and reporting obligations if we become subject to a corporate integrity agreement or similar settlement to resolve allegations of non-compliance with these laws and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to similar actions, penalties and sanctions. Ensuring business arrangements comply with applicable healthcare laws, as well as responding to possible investigations by government authorities, can be time- and resource-consuming and can divert a company's attention from its business.

Insurance Coverage and Reimbursement

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Thus, even if a product candidate is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations, provide coverage, and establish adequate reimbursement levels for, the product. In the United States, the principal decisions about reimbursement for new medicines are typically made by the Centers for Medicare & Medicaid Services, or CMS, an agency within the U.S. Department of Health and Human Services, or HHS. CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree. No uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. The process for determining whether a third-party payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, which will require additional expenditure above and beyond the costs required to obtain FDA or other comparable regulatory approvals. Additionally, companies may also need to provide discounts to purchasers, private health plans or government healthcare programs. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover a product could reduce physician utilization once the product is approved and have a material adverse effect on sales, our operations and financial condition. Additionally, a third-party payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of products have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. Coverage policies and third-party payor reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which a company or its collaborators receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Current and future healthcare reform legislation

In the United States and certain foreign jurisdictions, there have been, and likely will continue to be, a number of legislative and regulatory changes and proposed changes regarding the healthcare system directed at broadening the availability of healthcare, improving the quality of healthcare, and containing or lowering the cost of healthcare. For example, in March 2010, the United States Congress enacted the ACA, which, among other things, includes changes to the coverage and payment for products under government health care programs. The ACA includes provisions of importance to our potential product candidates that:

- created an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic products, apportioned among these entities according to their market share in certain government healthcare programs;
- expanded eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;
- expanded manufacturers' rebate liability under the Medicaid Drug Rebate Program by increasing the minimum rebate for both branded and generic drugs and revising the definition of "average manufacturer price," or AMP, for calculating and reporting Medicaid drug rebates on outpatient prescription drug prices;
- addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- expanded the types of entities eligible for the 340B drug discount program;
- established the Medicare Part D coverage gap discount program by requiring manufacturers to provide point-of-sale-discounts off the negotiated price of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D; and
- created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

Since its enactment, there have been numerous judicial, administrative, executive, and legislative challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, various portions of the ACA are currently facing legal and constitutional challenges in the United States Supreme Court. It is unclear how such litigation and other efforts to repeal and replace the ACA will impact the ACA and our business. Additionally, the Trump administration issued various Executive Orders which eliminated cost sharing subsidies and various provisions that would impose a fiscal burden on states or a cost, fee, tax, penalty or regulatory burden on individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices, and Congress has introduced several pieces of legislation aimed at significantly revising or repealing the ACA. It is unclear whether the ACA will be overturned, repealed, replaced, or further amended. We cannot predict what effect further changes to the ACA would have on our business.

Other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. For example, in August 2011, the Budget Control Act of 2011, among other things, included aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional Congressional action is taken. The Coronavirus Aid, Relief and Economic Security Act, or CARES Act, which was signed into law in March 2020 and is designed to provide financial support and resources to individuals and businesses affected by the COVID-19 pandemic, suspended these reductions from May 1, 2020 through December 31, 2020. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, including bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their commercial products, which has resulted in several Congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. For example, at the federal level, the current administration's budget for fiscal year 2021 includes a $135 billion allowance to support legislative proposals seeking to reduce drug prices, increase competition, lower out-of-pocket drug costs for patients, and increase patient access to lower-cost generic and biosimilar drugs. On March 10, 2020, the current administration sent "principles" for drug pricing to Congress, calling for legislation that would, among other things, cap Medicare Part D beneficiary out-of-pocket pharmacy expenses, provide an option to cap Medicare Part D beneficiary monthly out-of-pocket expenses, and place limits on pharmaceutical price increases. Additionally, the current administration released a "Blueprint" to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. HHS has already started the process of soliciting feedback on some of these measures and, at the same time, is immediately implementing others under its existing authority. For example, in May 2019, CMS issued a final rule to allow Medicare Advantage Plans the option of using step therapy, a type of prior authorization, for Part B drugs beginning January 1, 2020. This final rule codified CMS's policy change that was effective January 1, 2019. Although a number of these and other measures may require additional authorization to become effective, Congress and the current administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. Additionally, on October 1, 2020 the FDA published a final rule that allows for the importation of certain prescription drugs from Canada. Under the final rule, States and Indian Tribes, and in certain future circumstances pharmacists and wholesalers, may submit importation program proposals to the FDA for review and authorization. Since the issuance of the final rule, several industry groups have filed federal lawsuits challenging multiple aspects of the final rule, and authorities in Canada have passed rules designed to safeguard the Canadian drug supply from shortages. On September 25, 2020, CMS stated drugs imported by States under this rule will not be eligible for federal rebates under Section 1927 of the Social Security Act and manufacturers would not report these drugs for "best price" or Average Manufacturer Price purposes. Since these drugs are not considered covered outpatient drugs, CMS further stated it will not publish a National Average Drug Acquisition Cost for these drugs. Separately, the FDA also issued a final guidance document outlining a pathway for manufacturers to obtain an additional National Drug Code, or NDC, for an FDA-approved drug that was originally intended to be marketed in a foreign country and that was authorized for sale in that foreign country. The regulatory and market implications of the final rule and guidance are unknown at this time. Individual states in the United States have also increasingly passed legislation and implemented regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

On November 20, 2020, CMS and the HHS Office of the Inspector General issued two final rules implementing changes to the Physician Self-Referral Law, or Stark Law, and the Anti-Kickback Statute. These new rules codify new value-based exceptions and safe harbors to the Stark Law and the Anti-Kickback Statute, as well as offer additional clarification in the form of updated definitions. We continue to analyze and monitor the potential impact of these new and amended exceptions and safe harbors.

On May 30, 2018, the Right to Try Act was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a drug manufacturer to make its drug products

available to eligible patients as a result of the Right to Try Act, but the manufacturer must develop an internal policy and respond to patient requests according to that policy.

Outside the United States, ensuring coverage and adequate payment for a product also involves challenges. Pricing of prescription pharmaceuticals is subject to government control in many countries. Pricing negotiations with government authorities can extend well beyond the receipt of regulatory approval for a product and may require a clinical trial that compares the cost-effectiveness of a product to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in commercialization.

In the European Union, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed upon. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies or so-called health technology assessments, in order to obtain reimbursement or pricing approval. For example, the European Union provides options for its member states to restrict the range of products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a product or may instead adopt a system of direct or indirect controls on the profitability of the company placing the product on the market. Other member states allow companies to fix their own prices for products, but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions. Recently, many countries in the European Union have increased the amount of discounts required on pharmaceuticals and these efforts could continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the European Union. The downward pressure on healthcare costs in general, particularly prescription products, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states, and parallel trade, i.e., arbitrage between low-priced and high-priced member states, can further reduce prices. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any products, if approved in those countries.

Compliance with other federal and state laws or requirements; changing legal requirements

If any products that we may develop are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, labeling, packaging, distribution, sales, promotion and other activities also are potentially subject to federal and state consumer protection and unfair competition laws, among other requirements to which we may be subject.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive recordkeeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The failure to comply with any of these laws or regulatory requirements may subject firms to legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, exclusion from federal healthcare programs, requests for recall, seizure of products, total or partial suspension of production, denial or withdrawal of product approvals, relabeling or repackaging, or refusal to allow a firm to enter into supply contracts, including government contracts. Any claim or action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management’s attention from the operation of our business. Prohibitions or restrictions on marketing, sales or withdrawal of future products marketed by us could materially affect our business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling or packaging; (iii) the recall or discontinuation of our products; or (iv) additional recordkeeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

Other U.S. environmental, health and safety laws and regulations

We may be subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, our operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and may also produce hazardous waste products. Even if we contract with third parties for the disposal of these materials and waste products, we cannot completely eliminate the risk of contamination or injury resulting from these materials. In the event of contamination or injury resulting from the use or disposal of our hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

We maintain workers' compensation insurance to cover us for costs and expenses that we may incur due to injuries to our employees, but this insurance may not provide adequate coverage against potential liabilities. However, we do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair our research, development or production efforts. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions.

Government regulation of drugs and biologics outside of the United States

To market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, manufacturing, commercial sales and distribution of our products. For instance, in the United Kingdom and the European Economic Area, or the EEA (comprised of the 27 EU Member States plus Iceland, Liechtenstein and Norway), medicinal products must be authorized for marketing by using either the centralized authorization procedure or national authorization procedures.

- *Centralized procedure*—The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid throughout the EEA. Pursuant to Regulation (EC) No. 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy products (gene therapy, somatic cell therapy and tissue engineered products) and products with a new active substance indicated for the treatment of certain diseases, which includes products for the treatment of cancer. For medicines that do not fall within one of the mandatory categories, an applicant still has the option of submitting an application for a centralized marketing authorization to the European Medicines Agency, or EMA, as long as the medicine concerned contains a new active substance not yet authorized in the EEA, is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health in the EEA. If pursuing marketing authorization of a product candidate for a therapeutic indication under the centralized procedure, the EMA's Committee for Medicinal Products for Human Use, or CHMP, is responsible for conducting an initial assessment of whether a product meets the required quality, safety and efficacy requirements, and whether a product has a positive benefit/risk ratio. Under the centralized

procedure the maximum timeframe for the evaluation of a marketing authorization application, or MAA, by the EMA is 210 days, excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. Clock stops may extend the timeframe of evaluation of a MAA considerably beyond 210 days. Where the CHMP gives a positive opinion, it provides the opinion together with supporting documentation to the European Commission, who make the final decision to grant a marketing authorization, which is issued within 67 days of receipt of the EMA's recommendation. Accelerated assessment might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of major public health interest, particularly from the point of view of therapeutic innovation. The timeframe for the evaluation of a MAA under the accelerated assessment procedure is 150 days, excluding clock stops, but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that the application is no longer appropriate to conduct an accelerated assessment.

- *National authorization procedures*—There are also two other possible routes to authorize products for therapeutic indications in several countries, which are available for products that fall outside the scope of the centralized procedure:
  - *Decentralized procedure*—Using the decentralized procedure, an applicant may apply for simultaneous authorization in more than one EEA Member State for a medicinal product that has not yet been authorized in any EEA Member State and that does not fall within the mandatory scope of the centralized procedure.
  - *Mutual recognition procedure*—In the mutual recognition procedure, a medicine is first authorized in one EEA Member State, in accordance with the national procedures of that country. Following this, additional marketing authorizations can be sought from other EEA Member States in a procedure whereby the countries concerned recognize the validity of the original, national marketing authorization.

    In both cases, as with the centralized procedure, the competent authorities of the EEA Member States assess the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy before granting the marketing authorization.

In the EEA, new products for therapeutic indications that are authorized for marketing (i.e., innovator products) qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic or biosimilar applicants from referencing the preclinical and clinical trial data contained in the dossier of the innovator product when applying for a generic or biosimilar marketing authorization in the EEA during a period of eight years from the date on which the innovator product was first authorized in the EEA. The additional two-year period of market exclusivity period prevents a successful generic or biosimilar applicant from commercializing its product in the EEA until ten years have elapsed from the initial authorization of the reference product in the EU. The overall ten-year period can be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained marketing authorization based on a MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials

The criteria for designating an "orphan medicinal product" in the EEA are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, in the EEA a medicinal product may be designated as orphan if it meets the following criteria (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; and (2) either (a) such condition affects no more than five in 10,000 persons in the EEA when the application is made, or (b) it is unlikely that the product, without the benefits derived from orphan status, would generate sufficient return in the EEA to justify the investment needed

for its development; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition, or if such a method exists, the product will be of significant benefit to those affected by the condition. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years of market exclusivity for the approved therapeutic indication. During this ten-year orphan market exclusivity period, no marketing authorization application shall be accepted, and no marketing authorization shall be granted for a similar medicinal product for the same indication, although similar, is safer, more effective or otherwise clinically superior than the authorized product; (ii) the marketing authorization holder of the authorized product consents to a second orphan medicinal product application; or (iii) the marketing authorization holder of the authorized product cannot supply enough orphan medicinal product. An orphan product can also obtain an additional two years of market exclusivity in the EU for pediatric studies. The ten-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. The application for orphan drug designation must be submitted before the application for marketing authorization. The applicant will receive a fee reduction for the MAA if the orphan drug designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Similar to the United States, the various phases of non-clinical and clinical research in the European Union are subject to significant regulatory controls.

The Clinical Trials Directive 2001/20/EC, the Directive 2005/28/EC on GCP and the related national implementing provisions of the individual EU Member States govern the system for the approval of clinical trials in the European Union. Under this system, an applicant must obtain prior approval from the national competent authority, or NCA, of the EU Member States in which the clinical trial is to be conducted. Furthermore, the applicant may only start a clinical trial at a specific study site after the competent ethics committee, or EC, has issued a favorable opinion. The clinical trial application must be accompanied by, among other documents, an investigational medicinal product dossier (the Common Technical Document) with supporting information prescribed by Directive 2001/20/EC, Directive 2005/28/EC, and the provisions of the individual EU Member States' legislation implementing the Clinical Trials Directive. Under the current regime (the EU Clinical Trials Directive 2001/20/EC and corresponding national laws) all suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the NCA and ECs of the Member State where they occurred.

In April 2014, the new Clinical Trials Regulation, (EU) No 536/2014 (Clinical Trials Regulation) was adopted. It is expected that the new Clinical Trials Regulation (EU) No 536/2014 will apply following confirmation of full functionality of the Clinical Trials Information System (CTIS), the centralized European Union portal and database for clinical trials foreseen by the regulation, through an independent audit. The regulation becomes applicable six months after the European Commission publishes notice of this confirmation. The Clinical Trials Regulation will be directly applicable in all the EU Member States, repealing the current Clinical Trials Directive 2001/20/EC. Conduct of all clinical trials performed in the European Union will continue to be bound by the Clinical Trials Directive and the Member States' national implementing legislation until the new Clinical Trials Regulation becomes applicable. The extent to which ongoing clinical trials will be governed by the Clinical Trials Regulation will depend on when the Clinical Trials Regulation becomes applicable and on the duration of the individual clinical trial. If a clinical trial continues for more than three years from the day on which the Clinical Trials Regulation becomes applicable the Clinical Trials Regulation will at that time begin to apply to the clinical trial. The new Clinical Trials Regulation aims to simplify and streamline the approval of clinical trials in the European Union. The main characteristics of the regulation include: a streamlined application procedure via a single-entry point, the "EU portal"; a single set of documents to be prepared and submitted for the application as well as simplified reporting procedures for clinical trial sponsors; and a harmonized procedure for the assessment of applications for clinical trials, which is divided in two parts. Part I is assessed by the competent authorities of all EU Member States in which an application for authorization of a clinical trial has

been submitted (Member States concerned). Part II is assessed separately by each Member State concerned. Strict deadlines have been established for the assessment of clinical trial applications. The role of the relevant ethics committees in the assessment procedure will continue to be governed by the national law of the concerned EU Member State. However, overall related timelines will be defined by the Clinical Trials Regulation.

Government regulation of data collection outside of the United States

In the event we conduct clinical trials in the European Union, we will be subject to additional privacy restrictions. The collection and use of personal health data in the European Economic Area, or EEA (being the European Union plus Norway, Iceland, and Liechtenstein), is governed by the General Data Protection Regulation, or the GDPR, which became effective on May 25, 2018. The GDPR applies to the processing of personal data by any company established in the EEA and to companies established outside the EEA to the extent they process personal data in connection with the offering of goods or services to data subjects in the EEA or the monitoring of the behavior of data subjects in the EEA. The GDPR enhances data protection obligations for data controllers of personal data, including stringent requirements relating to the consent of data subjects, expanded disclosures about how personal data is used, enhanced requirements for securing personal data, requirements to conduct privacy impact assessments for "high risk" processing, limitations on retention of personal data, mandatory data breach notification and "privacy by design" requirements, and creates direct obligations on service providers acting as processors. The GDPR also imposes strict rules on the transfer of personal data outside of the EEA to countries that do not ensure an adequate level of protection, like the United States. Failure to comply with the requirements of the GDPR and the related national data protection laws of the European Union Member States and Norway, Iceland and Liechtenstein, which may deviate slightly from the GDPR, may result in fines of up to 4% of a company's global revenue for the preceding financial year, or €20,000,000, whichever is greater. Moreover, the GDPR grants data subjects the right to claim material and non-material damages resulting from infringement of the GDPR. Given the breadth and depth of changes in data protection obligations, maintaining compliance with the GDPR will require significant time, resources and expense, and we may be required to put in place additional controls and processes ensuring compliance with the new data protection rules. There has been limited enforcement of the GDPR to date, particularly in biopharmaceutical development, so we face uncertainty as to the exact interpretation of the new requirements on any future trials and we may be unsuccessful in implementing all measures required by data protection authorities or courts in interpretation of the new law. Further, the United Kingdom's decision to leave the European Union, means that it has in force its own legislation which is aligned with the GDPR, known as the Data Protection Act 2018. The requirements are similar except that the United Kingdom is now regarded as a "third country" for the purposes of transfers of personal data from the EEA. Transfers continue to flow freely from the UK to the EEA; however, as part of the agreement between the UK and the EU, the UK intends to obtain an adequacy decision from the European Commission to ensure personal data can continue to flow freely from the EU to the UK. The UK hopes to obtain this decision by the end of June 2021.

Data protection authority activity differs across the EU, with certain authorities applying their own agenda which shows there is uncertainty in the manner in which data protection authorities will seek to enforce compliance with GDPR. For example, it is not clear if the authorities will conduct random audits of companies doing business in the EU, or if the authorities will wait for complaints to be filed by individuals who claim their rights have been violated. Enforcement uncertainty and the costs associated with ensuring GDPR compliance are onerous and may adversely affect our business, financial condition, results of operations and prospects.

Should we utilize third party distributors, compliance with such foreign governmental regulations would generally be the responsibility of such distributors, who may be independent contractors over whom we have limited control.

Employees

As of December 31, 2020, we had 29 full-time employees, of which 16 have M.D. or Ph.D. degrees. Within our workforce, 21 employees are engaged in research and development and eight are engaged in business

development, finance, legal, and general management and administration. None of our employees are represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards.

Facilities

Our corporate headquarters is located in Boston, Massachusetts, where we lease and occupy approximately 13,170 square feet of office and laboratory space, or the Boston Lease. The term of our Boston Lease expires on February 28, 2021. Additionally, we have entered into a lease to move our corporate headquarters and occupy approximately 20,752 square feet of office, laboratory and animal care space, or the New Lease. We expect the commencement date of the New Lease to be February 1, 2021 and the term is expected to expire on May 31, 2026.

We believe our existing facilities, including the facilities we expect to occupy under the New Lease, are sufficient for our needs for the foreseeable future. To meet the future needs of our business, we may lease additional or alternate space, and we believe suitable additional or alternative space will be available in the future on commercially reasonable terms.

Legal proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are probable to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on our business, financial condition, results of operations and prospects because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

Executives and directors

The following table sets forth the name, age and position of each of our executives and directors as of December 31, 2020.

Name	Age	Position
Executive Officers:		
Mark Manfredi, Ph.D.	50	President, Chief Executive Officer and Director
Douglas R. Carlson	42	Chief Financial Officer
Jeffrey Ecsedy, Ph.D.	51	Chief Scientific Officer
Sergio Santillana, M.D., M.Sc., MBA	58	Chief Medical Officer
Maude Tessier, Ph.D.	43	Chief Business Officer
Non-Employee Directors:		
Ronald C. Renaud, Jr.(1)(2)	51	Chairman and Director
David Bonita, M.D.	45	Director
Iain D. Dukes, D.Phil.	62	Director
Jean-François Formela, M.D.(1)	64	Director
Otello Stampacchia, Ph.D.	51	Director

(1) Member of the Audit Committee
(2) Member of the Compensation Committee
(3) Member of the Nominating and Corporate Governance Committee

Each executive officer serves at the discretion of our board of directors and holds office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

Executive Officers

Mark Manfredi, Ph.D. is a founding member of Ikena Oncology and has served as our President and Chief Executive Officer, and as a member of our board of directors since December 2017. Previously, Dr. Manfredi served as our Chief Scientific Officer from March 2016 until December 2017. Prior to that, from April 2015 to September 2017, Dr. Manfredi was an in-house oncology expert at Atlas Venture, a company that has founded multiple biotechnology companies and Dr. Manfredi currently serves as an advisor to Atlas Venture. Concurrently, from April 2015 to April 2016, Dr. Manfredi was the Chief Scientific Officer of Raze Therapeutics, Inc., a biotechnology company focused on oncology therapeutics that target key metabolic pathways. He also previously held roles of increasing responsibility at Millennium Pharmaceuticals, Inc., as well as its parent company, Takeda Pharmaceutical Company from April 2001 to April 2015. Dr. Manfredi holds a Bachelor of Science in Zoology from the University of Rhode Island, and a Doctorate of Philosophy from Boston College. We believe that Dr. Manfredi is qualified to serve as our President and Chief Executive Officer and as a member of our board of directors because of his significant scientific and industry knowledge, as well as valuable experience gained from prior service as President and Chief Executive Officer.

Douglas R. Carlson has served as our Chief Financial Officer since January 2019. Prior to this, from March 2013 to January 2019, he held roles of increasing responsibility at Collegium Pharmaceutical, Inc. (NASDAQ: COLL), or Collegium, a publicly-traded, specialty pharmaceutical company, including Vice President, Corporate and Business Development and Vice President, Commercial Operations, Corporate Strategy & Business Development. Prior to joining Collegium, Mr. Carlson was Senior Director of Business Development at BTG International, Inc. (LSE: BTG), or BTG, a publicly-traded, international specialist healthcare company, where he was responsible for global specialty pharmaceutical M&A and licensing, from August 2011 to March 2013. Prior to BTG, Mr. Carlson was Senior Director and Head of Business Development for Lundbeck Inc., or Lundbeck,

the U.S. Headquarters of H. Lundbeck A/S, from December 2009 to August 2011. Prior to Lundbeck, Mr. Carlson was Director of Corporate Development and M&A at Ovation Pharmaceuticals, Inc., or Ovation, where he played an integral role in the sale of Ovation to H. Lundbeck A/S in March 2009. Prior to Ovation, Mr. Carlson was an Associate in the healthcare group at Pequot Ventures, the venture capital arm of Pequot Capital Management, Inc. Mr. Carlson began his career in the healthcare investment banking group of Cowen. Mr. Carlson graduated from Trinity College in Hartford, Connecticut with a B.A. in American Studies in 2001. We believe that Mr. Carlson is qualified to serve as our Chief Financial Officer because of his extensive experience in the pharmaceutical industry, including his prior service in senior management roles with both private and public companies.

Jeffrey Ecsedy, Ph.D. has served as our Chief Scientific Officer since March 2019. Prior to this, he served as our Senior Vice President of Research and Development from October 2017 to February 2019. Previously, from June 2013 to October 2017, Dr. Ecsedy served as the Senior Director and Head of Oncology Translational Medicine at Takeda Pharmaceuticals Company Limited. Dr. Ecsedy holds a Bachelor of Science in Biological Sciences from the University of Connecticut and a Doctorate of Philosophy from Boston College. We believe that Dr. Ecsedy is qualified to serve as our Chief Scientific Officer because of his significant scientific and industry knowledge, and his prior service in senior management roles.

Sergio Santillana, M.D., M.Sc., MBA has served as our Chief Medical Officer since July 2020. Prior to this, he served as Senior Clinical Consultant for Ikena from September 2019 to June 2020. Dr. Santillana is also founder and President of his own oncology consulting firm, SLSS Consulting LLC, where he provides strategic consultancy services since April 2019. From June 2017 to April 2019 Dr. Santillana served as Senior Vice President and Chief Medical Officer at Merrimack Pharmaceuticals, Inc., a company focused on developing biologics and nanotherapeutics for solid tumors. Before joining Merrimack Pharmaceuticals, Inc., from March 2016 to June 2017, he was Head of Clinical Research and then Chief Medical Officer for ARIAD Pharmaceuticals, a commercial-stage biotechnology company focused on developing targeted therapies for cancer, that was acquired by Takeda Pharmaceutical Company. From August 2014 to March 2016, Dr. Santillana served as the Senior Medical Director of Oncology and Clinical Research at Takeda Pharmaceuticals International Limited, where he was the Global Clinical Lead of early development programs. Prior to joining Takeda Oncology, he served in various oncology clinical development roles at GlaxoSmithKline and Eli Lilly Oncology. Before joining the biopharmaceutical industry, Dr. Santillana was a practicing medical oncologist for more than a decade. Dr. Santillana holds a Bachelor of Science, Medical Degree (MD) and specialty/residence in Medical Oncology from the Universidad Nacional Federico Villarreal, a Master of Science from Kellogg College at Oxford University, and Master of Business Administration from Sloan School of Management at the Massachusetts Institute of Technology. We believe that Dr. Santillana is qualified to serve as our Chief Medical Officer because of his executive experience in the life sciences industry and his extensive medical knowledge.

Maude Tessier, Ph.D. has served as our Chief Business Officer since December 2019. Prior to this, she served as our Vice President of Business Development and Corporate Strategy from July 2018 to December 2019. Prior to that, from September 2014 until July 2018, Dr. Tessier held roles of increasing responsibility at Merck & Co., including Executive Director of Business Development & Licensing, and Director, Business Development & Licensing for oncology partnering. Prior to joining Merck & Co., from June 2008 until September 2014, Dr. Tessier held roles of increasing responsibility at Boston Children’s Hospital, including Assistant Director of Business Development and Strategic Initiatives. In this role, she forged discovery alliances with industry partners and also built and managed the Marketing & Communications team. Maude began her business development career at Xanthus Pharmaceuticals, a small venture-backed oncology biotech company in Cambridge, Mass., where she had key roles in Business Development and Program Management of a Phase 3 asset leading to its eventual FDA approval. Dr. Tessier holds a Bachelor of Science in Biochemistry from McGill University and a Doctorate in Medical Biophysics from the University of Toronto. We believe that Dr. Tessier is qualified to serve as our Chief Business Officer because of her extensive industry knowledge and experience.

Non-employee directors

Ronald C. Renaud, Jr. has served as Chairman of our board of directors and as a member of our audit and compensation committees since March 2018. Since November 2014, Mr. Renaud has served as President and Chief Executive Officer and as a member of the board of directors of Translate Bio, Inc. (Nasdaq: TBIO). Mr. Renaud currently serves as a member of the board of directors of Atara Biotherapeutics, Inc. (Nasdaq: ATRA) and Axial Biotherapeutics, Inc. Formerly, Mr. Renaud served as President and Chief Executive Officer of Idenix Pharmaceuticals, Inc., a biopharmaceutical company, from October 2010 until Idenix was acquired by Merck & Co., a pharmaceutical company, in August 2014. He was previously Chief Financial Officer and Chief Business Officer of Idenix Pharmaceuticals, Inc. from May 2007 until October 2010. Mr. Renaud has also previously served as a member of the boards of directors of Akebia Therapeutics, Inc. (Nasdaq: AKBA), PTC Therapeutics, Inc. (Nasdaq: PTCT), and Chimerix, Inc. (Nasdaq: CMRX). Mr. Renaud received a Bachelor of Arts from St. Anselm College and a Master of Business Administration from the Marshall School of Business at the University of Southern California. We believe that Mr. Renaud is qualified to serve on our board of directors because of his executive experience, his service on the boards of other private and public life sciences companies and his extensive knowledge of the life sciences industry.

David Bonita, M.D. has served as a member of our board of directors since March 2016. Dr. Bonita is a member of OrbiMed Advisors LLC, an investment firm. Dr. Bonita currently serves on the boards of directors of Acutus Medical Inc. (Nasdaq: AFIB), IMARA Inc. (Nasdaq: IMRA), Prelude Therapeutics, Inc. (Nasdaq: PRLD), Repare Therapeutics Inc. (Nasdaq: RPTX), and Tricida, Inc. (Nasdaq: TCDA), as well as several private companies. Dr. Bonita also previously served on the boards of directors of Clementia Pharmaceuticals Inc., Loxo Oncology, Inc., SI-BONE, Inc., and ViewRay Inc. Prior to OrbiMed, Dr. Bonita worked as a corporate finance analyst in the healthcare investment banking groups of Morgan Stanley and UBS. He has published scientific articles in peer-reviewed journals based on signal transduction research performed at Harvard Medical School. He received his B.A. in biology from Harvard University and his joint M.D./M.B.A. from Columbia University. We believe that Dr. Bonita is qualified to serve on our board of directors based on his roles on several public and private boards of directors as well as his extensive experience in investing in healthcare companies.

Iain D. Dukes, D.Phil. has served as a member of our board of directors since November 2016. Dr. Dukes is a Venture Partner at OrbiMed Advisors LLC, which he joined in August 2016. Dr. Dukes has served as the Chief Executive Officer of Viriom Inc. since February 2019 and has also served as the Executive Chairman of Angiex Inc. since February 2020. In June 2018, Dr. Dukes co-founded Theseus Pharmaceuticals, Inc. and currently serves as the Chief Executive Officer. In September 2017, Dr, Dukes co-founded Kartos Therapeutics, Inc. and currently serves as President. Dr. Dukes previously served as Senior Vice President and Head of Business Development and Licensing for Merck Research Laboratories from August 2013 through May 2016. Prior to joining Merck, Dr. Dukes was Vice President of External Research & Development at Amgen, Inc. from August 2010 to August 2013. From October 2017 to July 2020, Dr. Dukes was a board member and Chairman of KaNDy Therapeutics, which was acquired by Bayer AG in September 2020. From January 2020 to June 2020, Dr. Dukes served as supervisory board member of Themis BioScience GmbH, until it was acquired by Merck & Co. Dr. Dukes also co-founded Telios Pharmaceuticals, Inc., where he serves as President. Dr. Dukes currently serves on the boards of directors of NeRRe Therapeutics, ReViral Limited, and ENYO Therapeutics. Since August 2016, Dr. Dukes has also served as chairman of the board of directors of Iovance Biotherapeutics Inc. (Nasdaq: IOVA). Dr. Dukes holds Master of Jurisprudence and Doctor of Philosophy degrees from the University of Oxford, a Master of Science degree in Cardiovascular Studies from the University of Leeds and a Bachelor of Science degree in Pharmacology from the University of Bath. We believe that Dr. Dukes is qualified to serve as a member of our board of directors because of his extensive experience in the pharmaceutical industry, including his service in senior management roles.

Jean-François Formela, M.D. has served as a member of our board of directors and as a member of our audit committee since March 2016. Dr. Formela is currently a Partner at Atlas Venture and focuses on novel drug discovery approaches and therapeutics. Dr. Formela joined Atlas Venture in 1993 to build the U.S. life sciences

franchise. Dr. Formela is a director and co-founder of IFM Therapeutics, Inc., Intellia Therapeutics, Inc. (Nasdaq: NTLA), Korro Bio, Inc., Triplet Therapeutics, Inc. and Translate Bio, Inc. (Nasdaq: TBIO). Dr. Formela also serves on the board of Spero Therapeutics, Inc. (Nasdaq: SPRO). Dr. Formela is a member of the Partners Healthcare Innovation Growth Board and a former trustee of the Boston Institute of Contemporary Art. Dr. Formela received his Doctor of Medicine from Paris University School of Medicine and his Master of Business Administration from Columbia University. We believe Dr. Formela's experience in the life sciences industry, as well as his practice of medicine, provides him with the qualifications and skills to serve as a director of our Company

Otello Stampacchia, Ph.D. has served as a member of our board of directors since December 2020. Dr. Stampacchia is founder, Managing Director, and member of the investment committee at Omega Funds. Dr. Stampacchia currently serves on the board of directors of Kronos Bio, Inc. (Nasdaq: KRON), Morphic Holding, Inc. (Nasdaq: MORF), and Replimune Group, Inc. (Nasdaq: REPL), and private companies: Amunix Pharmaceuticals, Inc. and Scorpion Therapeutics, Inc. Prior to founding Omega in January 2004, Dr. Stampacchia was a Partner at AlpInvest Partners (now part of The Carlyle Group). Before AlpInvest Partners, he was the portfolio manager of the Lombard Odier Immunology Fund, an investment vehicle in Geneva, Switzerland, investing in public and private healthcare companies worldwide. Previously, Dr. Stampacchia was a member of the HealthCare corporate finance and M&A team at Goldman Sachs. Before Goldman, he helped co-found the healthcare investment activities at Index Securities (now Index Ventures). Dr. Stampacchia received a Masters of Science in Plant Genetics from the University of Pavia, a Masters of Science in Molecular Biology and a Doctorate of Philosophy in Molecular Biology from the University of Geneva and a Doctorate of Philosophy in Biotechnology from European Union Strasbourg. We believe Dr. Stampacchia is qualified to serve on our board of directors because of his venture capital experience in the life sciences industry and his service on the boards of other public and private life sciences companies.

Composition of our board of directors

Our board consists of six members, each of whom are members pursuant to the board composition provisions of our certificate of incorporation and agreements with our stockholders, and is chaired by Mr. Renaud. These board composition provisions will terminate upon the completion of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our nominating and corporate governance committee and our board of directors may therefore consider a broad range of factors relating to the qualifications and background of nominees. Our nominating and corporate governance committee's and our board of directors' priority in selecting board members is identification of persons who will further the interests of our stockholders through their established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape, professional and personal experiences, and expertise relevant to our growth strategy. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal. Our fifth amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated bylaws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part, also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

Director independence

We have applied to list our common stock on The Nasdaq Global Market. Under the Nasdaq listing rules, independent directors must comprise a majority of a listed company's board of directors within twelve months from the date of listing. In addition, the Nasdaq listing rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and governance committees be independent

within twelve months from the date of listing. Audit committee members must also satisfy additional independence criteria, including those set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under Nasdaq listing rules, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3 under the Exchange Act, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries, other than compensation for board service; or (2) be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C-1, the board of directors must consider, for each member of a compensation committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director, and whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our board of directors has determined that all members of the board of directors, except Mark Manfredi, Ph.D., are independent directors, including for purposes of the rules of The Nasdaq Global Market and the SEC. In making such independence determinations, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock. Upon the completion of this offering, we expect that the composition and functioning of our board of directors and each of our committees will comply with all applicable requirements of The Nasdaq Global Market and the rules and regulations of the SEC. There are no family relationships among any of our directors or executive officers. Dr. Manfredi is not an independent director under these rules because he is our President and Chief Executive Officer.

Staggered board

In accordance with the terms of our fifth amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated bylaws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part, our board of directors will be divided into three staggered classes of directors and each will be assigned to one of the three classes. At each annual meeting of the stockholders, a class of directors will be elected for a three-year term to succeed the directors of the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the annual meeting of stockholders to be held during the years 2022 for Class I directors, 2023 for Class II directors and 2024 for Class III directors.

- Our Class I directors will be ;
- Our Class II directors will be ; and
- Our Class III directors will be .

Our fifth amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated by-laws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part provide that the number of our directors shall be fixed from time to time by a resolution of the majority of our board of directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent stockholder efforts to effect a change of our management or a change in control.

Board leadership structure and board's role in risk oversight

Currently, the role of chairman of our board of directors is separated from the role of Chief Executive Officer. Our Chief Executive Officer is responsible for recommending strategic decisions and capital allocation to the board of directors and to ensure the execution of the recommended plans. The chairman of our board of directors is responsible for leading the board of directors in its fundamental role of providing advice to and independent oversight of management. Our board of directors recognizes the time, effort, and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our chairman, particularly as the board of directors' oversight responsibilities continue to grow. While our amended and restated by-laws and corporate governance guidelines will not require that our chairman and Chief Executive Officer positions be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including the four risks more fully discussed in the section entitled "Business" appearing elsewhere in this prospectus. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of the board of directors in overseeing the management of our risks is conducted primarily through committees of the board of directors, as disclosed in the descriptions of each of the committees below and in the charters of each of the committees. The full board of directors (or the appropriate board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures, their potential impact on us, and the steps we take to manage them. When a board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairman of the relevant committee reports on the discussion to the full board of directors during the committee reports portion of the next board meeting. This enables the board of directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

Committees of our board of directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will operate pursuant to a charter to be adopted by our board of directors and will be effective upon the effectiveness of the registration statement of which this prospectus is a part. The board of directors may also establish other committees from time to time to assist us and our board of directors. Upon the effectiveness of the registration statement of which this prospectus is a part, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, Nasdaq and SEC rules and regulations, if applicable. Upon our listing on The Nasdaq Global Market, each committee's charter will be available on our website at www.ikenaoncology.com. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be part of this prospectus.

Audit committee

serve on the audit committee, which is chaired by . Our board of directors has determined that each are "independent" for audit committee purposes as that term is defined by the rules of the SEC and Nasdaq, and that each has sufficient knowledge in financial and auditing matters to serve on the audit committee.

Our board of directors has determined that qualifies as an "audit committee financial expert," as defined under the applicable rules of the SEC. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of, our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the audit committee's review and discussions with management and our independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

Compensation committee

serve on the compensation committee, which is chaired by . Our board of directors has determined that each member of the compensation committee is "independent" as defined in the applicable Nasdaq rules. The compensation committee's responsibilities include:

- annually reviewing and recommending to the board of directors the corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and, based on such evaluation, recommending to the board of directors the cash compensation of our Chief Executive Officer;
- determining the cash compensation of our other executive officers;
- overseeing and administering our compensation and similar plans;
- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters and evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable Nasdaq rules;
- retaining and approving the compensation of any compensation advisors;
- reviewing and approving the grant of equity-based awards;

- reviewing and recommending to the board of directors the compensation of our directors; and
- preparing the compensation committee report required by SEC rules, if and when required, to be included in our annual proxy statement.

Each member of our compensation committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange act, and an outside director, as defined pursuant to Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code.

Nominating and corporate governance committee

Upon the effectiveness of the registration statement of which this prospectus forms a part, will serve on the nominating and corporate governance committee, which will be chaired by . Our board of directors has determined that a majority of the nominating and corporate governance committee is "independent" as defined in the applicable Nasdaq rules. The nominating and corporate governance committee's responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- reviewing the composition of the board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- reviewing and recommending to the board of directors appropriate corporate governance guidelines; and
- overseeing the evaluation of our board of directors.

Our board of directors may from time to time establish other committees.

Compensation committee interlocks and insider participation

In 2020, the compensation committee consisted of . None of the members of our compensation committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Business Conduct and Ethics

Our board of directors will adopt a Code of Business Conduct and Ethics in connection with this offering. The Code of Business Conduct and Ethics will apply to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer, or controller, or persons performing similar functions. Upon the completion of this offering, the full text of our Code of Business Conduct and Ethics will be posted on our website at www.ikenaoncology.com. The information on our website is deemed not to be incorporated in this prospectus or to be a part of this prospectus. If we make any substantive amendments to, or grant any waivers from, our Code of Business Conduct and Ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

Limitations on Liability and Indemnification Agreements

As permitted by Delaware law, provisions in our fifth amended and restated certificate of incorporation, which will become effective immediately prior to the closing of this offering, and amended and restated bylaws, which will become effective upon the effectiveness of this registration statement, limit or eliminate the personal liability of directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, a director exercise an informed business judgment based on all material information reasonably available to him or her. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payments of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not limit or eliminate our rights or any stockholder's rights to seek non-monetary relief, such as injunctive relief or rescission. These provisions will not alter a director's liability under other laws, such as the federal securities laws or other state or federal laws. Our fifth amended and restated certificate of incorporation that will become effective immediately prior to the closing of this offering also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Delaware law, our amended and restated bylaws to be effective upon the effectiveness of this registration statement will provide that:

- we will indemnify our directors, officers, employees and other agents to the fullest extent permitted by law;
- we must advance expenses to our directors and officers, and may advance expenses to our employees and other agents, in connection with a legal proceeding to the fullest extent permitted by law; and
- the rights provided in our amended and restated bylaws are not exclusive.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director or officer, then the liability of our directors or officers will be so eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated bylaws will also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our bylaws permit such indemnification. We have obtained such insurance.

In addition to the indemnification that will be provided for in our fifth amended and restated certificate of incorporation and amended and restated bylaws, we plan to enter into separate indemnification agreements with each of our directors and executive officers, which may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements may require us, among other things, to indemnify our directors and executive officers for some expenses, including attorneys' fees, expenses, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of his service as one of our directors or executive officers or any other company or enterprise to which the person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

This description of the indemnification provisions of our fifth amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is qualified in its entirety by reference to these documents, each of which is attached as an exhibit to the registration statement of which this prospectus forms a part.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

EXECUTIVE COMPENSATION

The following discussion contains forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. The actual amount and form of compensation and the compensation policies and practices that we adopt in the future may differ materially from currently planned programs as summarized in this discussion.

Our named executive officers, or NEOs, for the year ended December 31, 2020, which consist of our principal executive officer and the next two most highly compensated executive officers, are:

- Mark Manfredi, Ph.D., our President and Chief Executive Officer;
- Douglas R. Carlson, our Chief Financial Officer; and
- Sergio Santillana, M.D., M.Sc., MBA, our Chief Medical Officer.

To date, the compensation of our NEOs has consisted of a combination of base salary, cash bonuses and long-term incentive compensation in the form of stock options. Our NEOs, like all full-time employees, are eligible to participate in our health and welfare benefit plans. As we transition from a private company to a publicly traded company, we intend to evaluate our compensation values and philosophy and compensation plans and arrangements as circumstances require.

2020 Summary Compensation Table

The following table shows the total compensation earned by, or paid to, our NEOs for services rendered to us in all capacities during the fiscal year ended December 31, 2020.

Name and principal position	Year	Salary ($)	Bonus ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)(1)	All Other Compensation ($)	Total ($)
Mark Manfredi, Ph.D. *President and Chief Executive Officer*	2020	409,500	—	—	—	—	409,500
Douglas R. Carlson *Chief Financial Officer*	2020	330,372	—	—	—	—	330,372
Sergio Santillana, M.D., M.Sc., MBA(2) *Chief Medical Officer*	2020	137,499	—	586,700(3)	—	54,250(4)	778,449

(1) Cash bonuses for performance during the year ended December 31, 2020 are not calculable as of the latest practicable date prior to the filing of this prospectus. We expect that such amounts will be determined later in the first quarter of the fiscal year ending December 31, 2021. For more information on these bonuses, see the description of the annual performance bonuses under “2020 bonuses” below.

(2) Dr. Santillana joined our company as our Chief Medical Officer in July 2020. Pursuant to the terms of his employment agreement with us, Dr. Santillana devotes approximately 50% of his full working time to our company and his annual base salary for 2020 was $275,000, which reflects his 50% commitment.

(3) This amount represents the aggregate grant date fair value of the option award granted to Dr. Santillana during our fiscal year ended December 31, 2020, computed in accordance with FASB ASC Topic 718. A discussion of the assumptions used in determining grant date fair value may be found in Note to our financial statements for the year ended December 31, 2020, included elsewhere in this prospectus. This amount does not correspond to the actual value that may be recognized by Dr. Santillana upon exercise of the applicable award or sale of the underlying shares of stock.

(4) The amount reported for Dr. Santillana represents fees paid to Dr. Santillana for his services as a consultant in 2020 prior to becoming our Chief Medical Officer in July 2020. Pursuant to the consulting agreement between us and Dr. Santillana, he was paid $500 per hour for consulting services.

Narrative Disclosure to Summary Compensation Table

2020 salaries

Our NEOs each receive a base salary to compensate them for services rendered to our company. The base salary payable to each NEO is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries are reviewed annually, typically in connection with our annual performance review process, approved by our board of directors or the compensation committee, and may be adjusted from time to time to realign salaries with market levels after taking into account individual responsibilities, performance, and experience.

For fiscal year 2020, the annual base salary for each of Dr. Manfredi, Mr. Carlson, and Dr. Santillana were $409,500, $330,372, and $275,000, respectively. For Dr. Santillana, his 2020 base salary reflects that he devoted approximately 50% of his full working time to our company during the time that he served as our Chief Medical Officer in 2020.

2020 bonuses

For the fiscal year ended December 31, 2020, each NEO was eligible to earn an annual cash bonus based on the achievement of certain corporate and individual performance milestones. The target annual bonus for each of Dr. Manfredi, Mr. Carlson, and Dr. Santillana for the fiscal year ended December 31, 2020 were 35%, 35% and 35% of annual base salary, respectively.

The annual cash bonus earned by each NEO for the fiscal year ended December 31, 2020 has not been determined as of the date of this filing, but once determined will be reported in the "Non-Equity Incentive Plan Compensation" column of the "2020 Summary Compensation Table" above.

Equity-based compensation

Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants promote executive retention because they incentivize our executive officers to remain in our employment during the vesting period. Accordingly, our board of directors or our compensation committee periodically review the equity incentive compensation of our NEOs and may grant equity incentive awards to them from time to time. In July 2020, in connection with his appointment as our Chief Medical Officer, we granted Dr. Santillana an option to purchase 1,128,269 shares of our common stock, with an exercise price per share equal to the fair market value of our common stock on the date of grant.

Outstanding Equity Awards at 2020 Fiscal Year End

The following table lists all outstanding equity awards held by our NEOs as of December 31, 2020.

	Option Awards(1)				
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Vesting Commencement Date	Option Exercise Price ($)	Option Expiration Date
Mark Manfredi	681,818(2)	—	4/15/2016	0.16	8/24/2026
	852,274(3)	284,089(3)	12/8/2017	0.41	2/19/2028
	811,692(4)	270,558(4)	12/14/2017	0.30	12/17/2028
	640,156(5)	823,046(5)	3/20/2019	0.58	3/19/2029
Douglas R. Carlson	556,822(6)	715,905(6)	1/28/2019	0.58	3/19/2029
Sergio Santillana	—	1,128,269(7)	7/1/2020	0.63	7/22/2030

(1) Each of the outstanding equity awards in the table above was granted pursuant to our 2016 Stock Incentive Plan, as amended, or the 2016 Plan.
(2) Represents an option to purchase shares of our common stock granted on August 24, 2016. The shares underlying this option vest as follows: 25% of the shares vested on April 15, 2017 and the remainder vested over the next three years in equal monthly installments on the last day of each succeeding calendar month. All shares underlying this option have vested and are exercisable by Dr. Manfredi.
(3) Represents an option to purchase shares of our common stock granted on February 20, 2018. The shares underlying this option vest in equal monthly installments on the last day of each calendar month following the vesting commencement date and will become fully vested on the fourth anniversary of the vesting commencement date, subject to continued service to us through the applicable vesting date.
(4) Represents an option to purchase shares of our common stock granted on December 18, 2018. The shares underlying this option vest as follows: 25% of the shares vested on December 14, 2018 and the remainder vest over the next three years in equal monthly installments on the last day of each succeeding calendar month (with the option becoming fully vested on the fourth anniversary of the vesting commencement date), subject to continued service to us through the applicable vesting date.
(5) Represents an option to purchase shares of our common stock granted on March 20, 2019. The shares underlying this option vest as follows: 25% of the shares vested on March 20, 2020 and the remainder vest over the next three years in equal monthly installments on the last day of each succeeding calendar month thereafter (with the option becoming fully vested on the fourth anniversary of the vesting commencement date), subject to continued service to us through the applicable vesting date.
(6) Represents an option to purchase shares of our common stock granted on March 20, 2019. The shares underlying this option vest as follows: 25% of the shares vested on January 19, 2020 and the remainder vest over the next three years in equal monthly installments on the last day of each succeeding calendar month thereafter (with the option becoming fully vested on the fourth anniversary of the vesting commencement date), subject to continued service to us through the applicable vesting date.
(7) Represents an option to purchase shares of our common stock granted on July 23, 2020. The shares underlying this option vest as follows: 25% of the shares vest on July 1, 2021 and the remainder vest over the next three years in equal monthly installments on the last day of each succeeding calendar month thereafter (with the option becoming fully vested on the fourth anniversary of the vesting commencement date), subject to continued service to us through the applicable vesting date.

Executive Compensation Arrangements

In connection with this offering, we intend to enter into new employment agreements with each of Dr. Manfredi, Mr. Carlson, and Dr. Santillana.

Employment Arrangements in Place Prior to the Offering for Named Executive Officers

Mark Manfredi, Ph.D.

Effective December 8, 2017, we entered into an amended and restated employment agreement with Dr. Manfredi, or the Manfredi Employment Agreement, for the position of Chief Executive Officer. The Manfredi Employment Agreement provides for Dr. Manfredi's at-will employment. Dr. Manfredi's current annual base salary is $409,500, and he is eligible for an annual bonus with a target amount of 35% of his current annual base salary. Dr. Manfredi is eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans.

Pursuant to the Manfredi Employment Agreement, in the event that Dr. Manfredi's employment is terminated by us without "cause" (as defined in the Manfredi Employment Agreement), subject to the execution and effectiveness of a severance and release of claims agreement within 60 days of such termination, Dr. Manfredi will be entitled to receive (i) six months of base salary continuation, (ii) accelerated vesting of the portion of the stock options and restricted stock awards held by Dr. Manfredi that would have vested in the six months

following termination had Dr. Manfredi remained employed, and (iii) subject to the Dr. Manfredi's timely election to continue COBRA health coverage and copayment of premium amounts at the applicable active employees' rate, we will continue to pay the share of the premiums that we would have paid to provide health insurance to Dr. Manfredi until the earlier of (A) six months following termination or (B) Dr. Manfredi's eligibility for group medical plan benefits under any other employer's group medical plan. In the event that such termination occurs within six months after a "change in control" (as defined in the Manfredi Employment Agreement), Dr. Manfredi will, subject to the execution and effectiveness of a general severance and release of claims agreement within 60 days of such termination, be entitled to receive (x) a lump sum payment equal to six months of base salary, (y) accelerated vesting of 100% of any stock options and restricted stock awards held by Dr. Manfredi, and (z) the benefits set forth in clause (iii) of the preceding sentence.

Douglas R. Carlson

On December 21, 2018, we entered into an employment offer letter with Mr. Carlson, or the Carlson Offer Letter, to serve as our Chief Financial Officer. The Carlson Offer Letter provides for Mr. Carlson's at-will employment. Mr. Carlson's current base salary is $330,372 and he is eligible for an annual bonus with a target amount of 35% of his base salary. Mr. Carlson is eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans. Pursuant to the Carlson Offer Letter, in the event that Mr. Carlson's employment is terminated by us without "cause" or by Mr. Carlson for "good reason" within one year of a "change of control" (as all such terms are defined in the 2016 Plan), then the unvested portion of the stock option granted to Mr. Carlson in March 2019 shall immediately vest in full.

Sergio Santillana, M.D.

Effective July 1, 2020, we entered into an employment agreement with Dr. Santillana, or the Santillana Employment Agreement, for the position of Chief Medical Officer. Pursuant to the terms of the Santillana Employment Agreement, Dr. Santillana devotes approximately 50% of his full working time to our company. The Santillana Employment Agreement provides for Dr. Santillana's at-will employment, his initial annual base salary of $275,000 (subject to adjustment), and his eligibility for an annual bonus with a target amount of 35% of his annual base salary. Dr. Santillana is eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans.

Pursuant to the Santillana Employment Agreement, in the event that Dr. Santillana's employment is terminated by us without "cause" or by Dr. Santillana for "good reason" (as such terms are defined in the Santillana Employment Agreement), subject to the execution and effectiveness of a separation agreement and a general release of claims within 60 days of such termination, Dr. Santillana will be entitled to receive (i) six months of base salary continuation, (ii) acceleration of vesting of 50% (or in the event that Dr. Santillana converts to full time employment 100%) of the unvested portion of any time-based stock options and other stock-based awards subject to time-based vesting held by Dr. Santillana, and (iii) subject to the Dr. Santillana's timely election to continue COBRA health coverage and copayment of premium amounts at the applicable active employees' rate, a monthly cash payment equal to the amount that we would have paid to provide health insurance to Dr. Manfredi until the earliest of (A) six months following termination, (B) Dr. Santillana's eligibility for group medical plan benefits under any other employer's group medical plan or (C) the end of Dr. Santillana's COBRA health continuation period.

Dr. Santillana has also entered into an Invention and Non-Disclosure Agreement with us that contains non-disclosure provisions that apply during and following his employment with us.

Employee Benefit and Equity Compensation Plans

2016 Stock Incentive Plan

Our 2016 Plan was adopted by our board of directors on March 4, 2016, approved by our stockholders on March 4, 2016 and most recently amended on December 18, 2020. As of December 31, 2020, under the 2016

Plan, we have reserved for issuance an aggregate of 37,264,008 shares of our common stock. The number of shares of common stock reserved for issuance shall be equitably adjusted by our board of directors in the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event.

The shares of common stock underlying awards that are terminated, surrendered or cancelled, are forfeited in whole or in part or otherwise result in shares of common stock not being issued are currently added back to the shares of common stock available for issuance under the 2016 Plan. Following this offering, such shares will be added to the shares of common stock available for issuance under the 2021 Plan.

Our board of directors has acted as administrator of the 2016 Plan. The administrator has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, and to determine the specific terms and conditions of each award, subject to the provisions of the 2016 Plan. Persons eligible to participate in the 2016 Plan are employees, officers and directors of, and consultants and advisors to, our company as selected from time to time by the administrator in its discretion.

The 2016 Plan permits the granting of (1) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code, and (2) options that do not so qualify. The per share exercise price of each option is determined by our board of directors but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option is fixed by our board of directors but may not exceed 10 years from the date of grant. Our board of directors determines at what time or times each option may be exercised.

In addition, the 2016 Plan permits the granting of stock appreciation rights, restricted shares of common stock, restricted stock units and other stock-based awards.

The 2016 Plan provides that upon the occurrence of a “reorganization event,” as defined in the 2016 Plan, our board of directors may take any one or more of the following actions as to all or any (or any portion of) outstanding awards (other than restricted stock awards) except as provided otherwise in an award agreement or other agreement between us and a participant: (i) provide that all such awards will be assumed or substituted with substantially equivalent awards by the acquiring or succeeding corporation (or affiliate thereof); (ii) upon written notice to a participant, provide that all unexercised awards will terminate immediately prior to the consummation of such reorganization event unless exercised (to the extent then exercisable) within a specified period following the date of such notice; (iii) provide that outstanding awards shall become exercisable, realizable or deliverable, or that applicable restrictions shall lapse in whole or in part prior to or upon such reorganization event; (iv) in the event of a reorganization event under the terms of which holders of common stock will receive a cash payment for each share surrendered in the reorganization event, or the “acquisition price,” provide for a cash payment to participants with respect to each award equal to the number of shares subject to the vested portion of such award (after giving effect to any acceleration of vesting in connection with such reorganization event) multiplied by the excess, if any, of the acquisition price over the exercise price of such award and any applicable withholdings, in exchange for the termination of such award; (v) provide that in connection with a liquidation or dissolution of the company, awards shall convert into the right to receive liquidation proceeds net the exercise price thereof and any applicable withholdings; and (vi) any combination of the foregoing. Upon a reorganization event other than a liquidation or dissolution of the company, the repurchase and other rights of the company with respect to outstanding restricted stock shall inure to the benefit of the company’s successor and shall, unless our board of directors determines otherwise, apply to the cash, securities or other property which the common stock was converted into or exchanged for pursuant to such reorganization event in the same manner and to the same extent as they applied to such restricted stock; provided that the board of directors may provide for termination or deemed satisfaction of such repurchase or other rights under the applicable award agreement. Upon a reorganization event involving the liquidation or dissolution of the company, except as specifically provided in an award agreement or other agreement with the participant, all restrictions and conditions on all restricted stock then outstanding shall automatically be deemed terminated or satisfied.

The board of directors may amend or discontinue the 2016 Plan at any time, subject to stockholder approval where such approval is required by applicable law. The administrator of the 2016 Plan may also amend or cancel any outstanding award, provided that no amendment to an award may materially adversely affect a participant's rights without his or her consent. The administrator of the 2016 Plan is specifically authorized to exercise its discretion to reduce the exercise price of outstanding awards or effect the repricing of such awards through cancellation and re-grants.

The 2016 Plan will automatically terminate upon the earlier of 10 years from the date on which the 2016 Plan was initially adopted by our board of directors or 10 years from the date the 2016 Plan was initially approved by our stockholders. As of , 2021, options to purchase shares of common stock were outstanding under the 2016 Plan. Our board of directors has determined not to make any further awards under the 2016 Plan following the closing of this offering.

2021 Stock Option and Incentive Plan

Our 2021 Stock Option and Incentive Plan, or 2021 Plan, was adopted by our board of directors on, , 2021, approved by our stockholders on , 2021 and will become effective upon the date immediately preceding the date on which the registration statement of which this prospectus is part is declared effective by the SEC. The 2021 Plan will replace the 2016 Plan as our board of directors has determined not to make additional awards under the 2016 Plan following the closing of our initial public offering. However, the 2016 Plan will continue to govern outstanding equity awards granted thereunder. The 2021 Plan allows us to make equity-based and cash-based incentive awards to our officers, employees, directors and consultants.

We have initially reserved shares of our common stock for the issuance of awards under the 2021 Plan, or the Initial Limit. The 2021 Plan provides that the number of shares reserved and available for issuance under the 2021 Plan will automatically increase on January 1, 2022 and each January 1 thereafter, by % of the outstanding number of shares of our common stock on the immediately preceding December 31 or such lesser number of shares as determined by our compensation committee, or the Annual Increase. The number of shares reserved under the 2021 Plan subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares we issue under the 2021 Plan will be authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards under the 2021 Plan and the 2016 Plan that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock, expire or are otherwise terminated (other than by exercise) will be added back to the shares of common stock available for issuance under the 2021 Plan.

The maximum number of shares of common stock that may be issued in the form of incentive stock options shall not exceed the Initial Limit, cumulatively increased on January 1, 2022 and on each January 1 thereafter by the lesser of the Annual Increase for such year or shares of common stock.

The grant date fair value of all awards made under our 2021 Plan and all other cash compensation paid by us to any non-employee director in any calendar year for services as a non-employee director shall not exceed $; provided, however, that such amount shall be $ for the calendar year in which the applicable non-employee director is initially elected or appointed to the board of directors.

The 2021 Plan will be administered by our compensation committee. Our compensation committee has the full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted and the number of shares subject to such awards, to make any combination of awards to participants, to accelerate at any time the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 2021 Plan. Persons eligible to participate in the 2021

Plan will be those full or part-time officers, employees, non-employee directors and consultants as selected from time to time by our compensation committee in its discretion.

The 2021 Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The option exercise price of each option will be determined by our compensation committee but may not be less than 100% of the fair market value of our common stock on the date of grant unless the option is granted (i) pursuant to a transaction described in, and in a manner consistent with Section 424(a) of the Code or (ii) to individuals who are not subject to U.S. income tax. The term of each option will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each option may be exercised.

Our compensation committee may award stock appreciation rights under the 2021 Plan subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock, or cash, equal to the value of the appreciation in our stock price over the exercise price. The exercise price of each stock appreciation right may not be less than 100% of the fair market value of our common stock on the date of grant. The term of each stock appreciation right will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each stock appreciation right may be exercised.

Our compensation committee may award restricted shares of common stock and restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified vesting period. Our compensation committee may also grant shares of common stock that are free from any restrictions under the 2021 Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

Our compensation committee may grant dividend equivalent rights to participants that entitle the recipient to receive credits for dividends that would be paid if the recipient had held a specified number of shares of common stock.

Our compensation committee may grant cash bonuses under the 2021 Plan to participants, subject to the achievement of certain performance goals.

The 2021 Plan provides that upon the effectiveness of a “sale event,” as defined in the 2021 Plan, an acquirer or successor entity may assume, continue or substitute outstanding awards under the 2021 Plan. To the extent that awards granted under the 2021 Plan are not assumed or continued or substituted by the successor entity, upon the effective time of the sale event, such awards shall terminate. In such case, except as may be otherwise provided in the relevant award certificate, all awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in connection with a sale event in the administrator’s discretion or to the extent specified in the relevant award certificate. In the event of such termination, (i) individuals holding options and stock appreciation rights will be permitted to exercise such options and stock appreciation rights (to the extent exercisable) within a specified period of time prior to the sale event or (ii) we may make or provide for a payment, in cash or in kind, to participants holding vested and exercisable options and stock appreciation rights equal to the difference between the per share consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights and we may make or provide for a payment, in cash or in kind, to participants holding other vested awards.

Our board of directors may amend or discontinue the 2021 Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder’s consent. Certain amendments to the 2021

Plan require the approval of our stockholders. The administrator of the 2021 Plan is specifically authorized to exercise its discretion to reduce the exercise price of outstanding stock options and stock appreciation rights or effect the repricing of such awards through cancellation and re-grants without stockholder consent. No awards may be granted under the 2021 Plan after the date that is 10 years from the effective date of the 2021 Plan. No awards under the 2021 Plan have been made prior to the date of this prospectus.

2021 Employee Stock Purchase Plan

Our 2021 Employee Stock Purchase Plan, or ESPP, was adopted by our board of directors on , 2021, approved by our stockholders on , 2021 and will become effective on the date immediately preceding the date on which the registration statement of which this prospectus forms a part is declared effective by the SEC. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. The ESPP initially reserves and authorizes the issuance of up to a total of shares of our common stock to participating employees. The ESPP provides that the number of shares reserved and available for issuance will automatically increase on January 1, 2022 and each January 1 thereafter through January 1, 2031, by the least of (i) shares of our common stock, (ii) % of the outstanding number of shares of common stock on the immediately preceding December 31, or (iii) such lesser number of shares of common stock as determined by the administrator of the ESPP. The number of shares reserved under the ESPP is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

All employees who are customarily employed by us or one of our designated subsidiaries for more than hours per week and who we have employed for at least days are eligible to participate in the ESPP. However, any employee who owns 5% or more of the total combined voting power or value of all classes of our stock will not be eligible to purchase shares of common stock under the ESPP.

We may make one or more offerings each year to our employees to purchase shares under the ESPP. Offerings will usually begin on each and and will continue for six-month periods, referred to as offering periods. Each eligible employee may elect to participate in any offering by submitting an enrollment form at least 15 business days before the applicable offering date

Each employee who is a participant in the ESPP may purchase shares of our common stock by authorizing payroll deductions of up to 15% of his or her eligible compensation during an offering period. Unless the participating employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to purchase shares of our common stock on the last business day of the offering period at a price equal to 85% of the fair market value of the shares of our common stock on the first business day or the last business day of the offering period, whichever is lower, provided that no more $25,000 worth of common stock (or such other lesser maximum number of shares as may be established by the administrator) may be purchased by any one employee during any offering period. Under applicable tax rules, an employee may purchase no more than $25,000 worth of shares of our common stock, valued at the start of the purchase period, under the ESPP in any calendar year.

The accumulated payroll deductions of any employee who is not a participant on the last day of an offering period will be refunded. An employee's rights under the ESPP terminate upon voluntary withdrawal from the plan or when the employee ceases employment with us for any reason.
The ESPP may be terminated or amended by our board of directors at any time. An amendment that increases the number of shares of our common stock authorized under the ESPP and certain other amendments require the approval of our stockholders.

Senior Executive Cash Incentive Bonus Plan

On , 2021 our board of directors adopted the Senior Executive Cash Incentive Bonus Plan, or the Bonus Plan. The Bonus Plan provides for annual cash bonus payments based upon the attainment of company

and individual performance targets established by our compensation committee. The payment targets will be related to financial and operational measures or objectives with respect to our company, or the Corporate Performance Goals, as well as individual performance objectives.

Our compensation committee may select Corporate Performance Goals from among the following: cash flow (including, but not limited to, operating cash flow and free cash flow); revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); changes in the market price of our common stock; economic value-added; acquisitions or strategic transactions, including collaborations, joint ventures or promotion arrangements; operating income (loss); return on capital assets, equity, or investment; stockholder returns; return on sales; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share of our common stock; bookings, new bookings or renewals; sales or market shares; number of customers, number of new customers or customer references; operating income and/or net annual recurring revenue; or any other performance goal as selected by the compensation committee, any of which may be measured in absolute terms, as compared to any incremental increase, in terms of growth, as compared to results of a peer group, against the market as a whole, compared to applicable market indices and/or measured on a pre-tax or post-tax basis.

Each executive officer who is selected to participate in the Bonus Plan will have a target bonus opportunity set for each performance period. The bonus formulas will be adopted in each performance period by the compensation committee and communicated to each executive. The Corporate Performance Goals will be measured at the end of each performance period after our financial reports have been published or such other appropriate time as the compensation committee determines. If the Corporate Performance Goals and individual performance objectives are met, payments will be made as soon as practicable following the end of each performance period, but no later than 74 days after the end of the fiscal year in which such performance period ends. Subject to the rights contained in any agreement between the executive officer and us, an executive officer must be employed by us on the bonus payment date to be eligible to receive a bonus payment. The Bonus Plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion.

401(k) plan

We currently maintain a 401(k) retirement savings plan for our employees, including our NEOs, who satisfy certain eligibility requirements. Our NEOs are eligible to participate in the 401(k) plan on the same terms as other full-time employees. Our 401(k) plan is intended to qualify for favorable tax treatment under Section 401(a) of the Code and contains a cash or deferred feature that is intended to meet the requirements of Section 401(k) of the Code. We believe that providing a vehicle for tax-deferred retirement savings though our 401(k) plan adds to the overall desirability of our executive compensation package and further incentivizes our employees, including our NEOs, in accordance with our compensation policies.

NON-EMPLOYEE DIRECTOR COMPENSATION

The following table presents the total compensation for each person who served as a non-employee member of our board of directors during the year ended December 31, 2020. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2020. During fiscal year 2020, Mark Manfredi, our President and Chief Executive Officer served as a member of our board of directors and received no additional compensation for his services as a member of our board of directors. See the section titled "Executive Compensation" for more information about Dr. Manfredi's compensation for fiscal year 2020. We reimburse non-employee members of our board of directors for reasonable travel and out-of-pocket expenses incurred in attending meetings of our board of directors and committees of our board of directors.

	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	All Other Compensation ($)	Total ($)
David Bonita, M.D.	—	—	—	—
Iain Dukes, D.Phil.	—	—	—	—
Jean-Francois Formela, M.D.	—	—	—	—
George Georgiou, Ph.D.	—	—	—	—
Ronald Renaud	—	—	—	—
Otello Stampacchia, Ph.D.	—	—	—	—

(1) There were no options or other equity awards granted to directors in 2020. Except as noted below, none of our directors held options to purchase our common stock or any other stock awards as of December 31, 2020.

	Aggregate Number of Shares Subject to Stock Options
Iain Dukes, D.Phil.	1,691,362
Ronald Renaud	901,364

Non-Employee Director Compensation Policy

In connection with this offering, we intend to adopt a non-employee director compensation policy that will become effective upon the completion of this offering and will be designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of this offering, as set forth below:

	Annual Retainer
Board of Directors:	
Members	$
Additional retainer for non-executive chair	$
Audit Committee:	
Members (other than chair)	$
Retainer for chair	$
Compensation Committee:	
Members (other than chair)	$
Retainer for chair	$
Nominating and Corporate Governance Committee:	
Members (other than chair)	$
Retainer for chair	$

In addition, the non-employee director compensation policy will provide that, upon initial election to our board of directors, each non-employee director will be granted an option to purchase shares of our common stock, or Initial Grant. The Initial Grant will vest in equal installments on the first, second, and third anniversaries of the grant date, subject to continued service through the applicable vesting date. Furthermore, on the date of each annual meeting of stockholders following the completion of this offering, each non-employee director who continues as a non-employee director following such meeting will be granted an annual option to purchase shares of our common stock, or Annual Grant. The Annual Grant will vest in full on the earlier of (i) the first anniversary of the grant date or (ii) our next annual meeting of stockholders, subject to continued service through the applicable vesting date. Such awards are subject to full accelerated vesting upon the sale of the company.

We will reimburse all reasonable out-of-pocket expenses incurred by non-employee directors in attending meetings of the board of directors and committees thereof.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions or series of transactions since January 1, 2018, to which we were or will be a party, in which:

- the amount involved in the transaction exceeds, or will exceed, the lesser of $120,000 or one percent of the average of the Company's total assets for the last two completed fiscal years; and
- in which any of our executive officers, directors or holders of five percent or more of any class of our capital stock, including their immediate family members or affiliated entities, had or will have a direct or indirect material interest.

Compensation arrangements for our named executive officers and our directors are described elsewhere in this prospectus under "Executive Compensation" and "Non-Employee Director Compensation."

Collaboration Agreement

In January 2019, we entered into a master collaboration agreement, or the BMS Collaboration Agreement, with Celgene Corporation (which was acquired by Bristol-Meyers Squibb Company, or BMS, in November 2019) under which BMS may elect in its sole discretion to exclusively license rights to develop and commercialize compounds (and products and diagnostic products containing such compounds) that modulate the activity of two collaboration targets, kynurenine and AHR excluding AHR agonists except for inverse agonists, or the Collaboration Candidates. The BMS Collaboration Agreement triggered an upfront payment of $95.0 million, which consisted of approximately $80.5 million in cash and an equity investment of approximately $14.5 million for which we issued 14,545,450 shares of our Series A-1 Preferred Stock pursuant to a separate share purchase agreement. See "—Private Placements of Securities—Series A-1 Preferred Stock Financing" and "Business—Master Collaboration Agreement with Bristol-Myers Squibb" for additional information. BMS is a holder of five percent or more of our capital stock.

Private Placements of Securities

Series A-1 Preferred Stock Financing

In January 2019, in connection with the BMS Collaboration Agreement, we sold 14,545,450 shares of Series A-1 Preferred Stock at a purchase price of $1.00 per share to Celgene Corporation (now BMS) for an aggregate purchase price of $14.5 million. Celgene Corporation (BMS) is a holder of five percent or more of our capital stock.

Participant	Shares of Series A-1 Preferred Stock	Total Purchase Price ($)
Celgene Corporation (BMS)	14,545,450	14,545,450

Series B Convertible Preferred Stock Financing

In December 2020, we sold an aggregate of 85,806,214 shares of our Series B preferred stock at a purchase price of $1.3985 per share for aggregate proceeds of $120.0 million. The following table summarizes purchases of our Series B preferred stock by related persons:

Participant	Shares of Series B Preferred Stock	Total Purchase Price ($)
Entities affiliated with FMR LLC(1)	17,876,296	24,999,999.96
Entities affiliated with OrbiMed Advisors LLC(2)	16,088,665	22,499,998.00
Omega Fund VI, L.P.(3)	12,870,933	17,999,999.80
Atlas Venture Opportunity Fund I, L.P.(4)	5,362,888	7,499,998.87
Celgene Corporation (BMS)	715,051	999,998.82

(1) Entities affiliated with FMR LLC collectively beneficially own more than five percent of our outstanding capital stock.
(2) Entities affiliated with OrbiMed Advisors LLC, or OrbiMed Advisors, collectively beneficially own more than five percent of our outstanding capital stock. Dr. Bonita is a member of OrbiMed Advisors and a member of our board of directors.
(3) Omega Fund VI, L.P. is a holder of five percent or more of our capital stock. Mr. Stampacchia is a Managing Director and co-founder of Omega Fund Management, LLC, is one of three directors of Omega Fund VI GP Manager, Ltd., the sole general partner of Omega Fund VI GP, L.P., which is the sole General Partner of Omega Fund VI, L.P. and is a member of our board of directors.
(4) Atlas Venture Opportunity Fund I, L.P. is an affiliate of Atlas Venture. Entities affiliated with Atlas Venture collectively beneficially own more than five percent of our outstanding capital stock. Dr. Formela is a partner at Atlas Venture and a member of our board of directors.

Other Agreements with Our Stockholders

In connection with our Series B convertible preferred stock financing, we entered into investors' rights, voting and right of first refusal and co-sale agreements containing registration rights, information rights, voting rights and rights of first refusal, among other things, with certain holders of our preferred stock and certain holders of our common stock. These stockholder agreements will terminate upon the closing of this offering, except for the registration rights granted under our investors' rights agreement, as more fully described in "Description of Capital Stock—Registration Rights."

Merger Agreements

On December 18, 2018, we entered into an agreement and plan of merger with Arrys Merger Sub, Inc., Arrys Therapeutics, Inc., and OrbiMed Private Investments VI, LP. We refer to this agreement as the Arrys Merger Agreement. Under the Arrys Merger Agreement, we agreed to merge with the other parties party thereto, resulting in Arrys Merger Sub, Inc. ceasing to exist and Arrys Therapeutics, Inc. becoming our wholly owned subsidiary. For more information regarding the Arrys Merger Agreement, see "Note 3 – Arrys Acquisition," to our financial statements for the year ended December 31, 2019, included elsewhere in this prospectus.

On October 1, 2020, we entered into an agreement and plan of merger with AMI Merger Sub, Inc., Amplify Medicines, Inc., and Atlas Venture Fund XI, L.P. We refer to this agreement as the AMI Merger Agreement. Under the AMI Merger Agreement, we agreed to merge with the other parties party thereto, resulting in AMI Merger Sub, Inc. ceasing to exist and Amplify Medicines, Inc. becoming our wholly owned subsidiary. For more information regarding the AMI Merger Agreement, see "Note 17—Subsequent Events," to our financial statements for the year ended December 31, 2019, included elsewhere in this prospectus.

Indemnification Agreements

We have entered into agreements to indemnify our directors and executive officers. These agreements will, among other things, require us to indemnify these individuals for certain expenses (including attorneys' fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on our behalf or that person's status as a member of our board of directors to the maximum extent allowed under Delaware law.

Policies for approval of related party transactions

Our board of directors reviews and approves transactions with directors, officers and holders of five percent or more of our voting securities and their affiliates, each a related party. Prior to this offering, the material facts as to the related party's relationship or interest in the transaction are disclosed to our board of directors prior to their consideration of such transaction, and the transaction is not considered approved by our board of directors unless a majority of the directors who are not interested in the transaction approve the transaction. Further, when stockholders are entitled to vote on a transaction with a related party, the material facts of the related party's relationship or interest in the transaction are disclosed to the stockholders, who must approve the transaction in good faith.

In connection with this offering, we have adopted a written related party transactions policy that such transactions must be approved by our audit committee. This policy will become effective on the date on which the registration statement of which this prospectus is part is declared effective by the SEC.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information known to us regarding beneficial ownership of our capital stock as of December 31, 2020, as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person or group of affiliated persons known by us to be the beneficial owner of more than five percent of our capital stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power with respect to the securities as well as any shares of common stock that the individual or entity has the right to acquire within 60 days of December 31, 2020 through the exercise of stock options or other rights. These shares are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to us, that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them.

Each individual or entity shown on the table has furnished information with respect to beneficial ownership. Unless otherwise indicated, the address for each beneficial owner is c/o Ikena Oncology, Inc., 50 Northern Avenue, Boston, MA 02210.

The percentage of beneficial ownership prior to this offering in the table below is based on shares of common stock deemed to be outstanding as of December 31, 2020, assuming the conversion of all outstanding shares of our preferred stock immediately prior to the completion of this offering, and the percentage of beneficial ownership at this offering in the table below is based on shares of common stock assumed to be outstanding after the closing of the offering. The information in the table below assumes no exercise of the underwriters' option to purchase additional shares.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Outstanding Beneficially Owned	
		Before Offering	After Offering
Entities affiliated with OrbiMed Advisors LLC(1)	56,512,367	%	%
Entities affiliated with Atlas Venture(2)	35,193,805	%	%
Entities affiliated with FMR LLC(3)	17,876,296	%	%
Celgene Corporation (Bristol-Meyers Squibb)(4)	15,260,501	%	%
Omega Fund VI, L.P.(5)	12,870,933	%	%
Named Executive Officers and Directors:			
Mark Manfredi, Ph.D.(6)	3,139,350	%	%
Douglas R. Carlson(7)	609,852	%	%
Sergio Santillana, M.D., M.Sc., MBA	—	%	%
Ron Renaud(8)	528,499	%	%
David Bonita, M.D.(1)	—	%	%
Iain D. Dukes, D.Phil.(9)	1,043,235	%	%
Jean-François Formela, M.D.(2)	—	%	%
Otello Stampacchia, Ph.D.(5)	—	%	%
All executive officers and directors as a group (10 persons)(10)	6,729,835	%	%

* Less than one percent.

(1) Consists of (i) 18,500,001 shares of our common stock issuable upon conversion of our Series A preferred stock held by OrbiMed Private Investments VI, LP, ("OPI VI"), (ii) 21,923,701 shares of our common stock issuable upon conversion of our Series A-1 preferred stock held by OPI VI, (iii) 8,938,148 shares of our common stock issuable upon conversion of our Series B preferred stock held by OPI VI, (iv) 5,720,414 shares of our common stock issuable upon conversion of our Series B preferred stock held by Worldwide Healthcare Trust PLC ("WWH"), and (v) 1,430,103 shares of our common stock issuable upon conversion of our Series B preferred stock held by OrbiMed Genesis Master Fund, L.P. ("OrbiMed Genesis"). Dr. Bonita is a member of OrbiMed Advisors and is a member of our board of directors. OrbiMed Capital GP VI LLC ("OrbiMed GP VI") is the general partner of OPI VI and OrbiMed Advisors is its managing member. OrbiMed Capital LLC ("OrbiMed Capital") is the portfolio manager of WWH. OrbiMed Genesis GP LLC is the general partner of OrbiMed Genesis and OrbiMed Advisors is its managing member. By virtue of such relationships, OrbiMed Genesis GP LLC, OrbiMed GP VI, OrbiMed Capital, and OrbiMed Advisors may be deemed to have voting power and investment power over the securities held by OPI VI, WWH, and OrbiMed Genesis (collectively, the "OrbiMed Funds"), and as a result, may be deemed to have beneficial ownership over such securities. OrbiMed Capital is a relying advisor of OrbiMed Advisors. OrbiMed Capital and OrbiMed Advisors exercise voting and investment power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein. Each of OrbiMed Advisors, OrbiMed GP VI, OrbiMed Capital, OrbiMed Genesis GP LLC, Dr. Bonita, Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein disclaims beneficial ownership of the shares held by the OrbiMed Funds, except to the extent of its or his pecuniary interest therein if any. The principal business address of the OrbiMed Funds is c/o OrbiMed Advisors, 601 Lexington Avenue 54th Floor, New York, NY 10022.

(2) Consists of (i) 1,209,707 shares of common stock held by Atlas Venture Fund XI, L.P. ("Atlas XI"), (ii) 9,499,999 shares of our common stock issuable upon conversion of our Series A preferred stock held by

Atlas Venture Fund X, L.P. (“Atlas X”), (iii) 11,258,117 shares of our common stock issuable upon conversion of our Series A-1 preferred stock held by Atlas X, (iv) 7,863,094 shares of our common stock issuable upon conversion of our Series A-2 preferred stock held by Atlas XI and (v) 5,362,888 shares of our common stock issuable upon conversion of our Series B preferred stock held by Atlas Venture Opportunity Fund I, L.P. (“Atlas Opportunity”). Atlas Venture Associates X, L.P. (“Associates X”) is the General Partner of Atlas X, and Atlas Venture Associates X, LLC (“X LLC”) is the general partners of Associates X. Atlas Venture Associates XI, L.P. (“Associates XI”) is the General Partner of Atlas XI, and Atlas Venture Associates XI, LLC (“XI LLC”) is the general partners of Associates XI. Atlas Venture Associates Opportunity I, L.P. (“Associates I”) is the General Partner of Atlas Opportunity, and Atlas Venture Associates Opportunity I, LLC (“I LLC”) is the general partners of Associates I. Dr. Formela is one of the members of X LLC, XI LLC and I LLC and collectively with other members of each respective LLC makes investments decisions for such LLC. Dr. Formela is also a member of our board of directors. The address of Atlas Venture Fund VIII LP is 300 Technology Square, Cambridge, MA 02139.

(3) Consists of (i) 10,131 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Capital Trust: Fidelity Flex Small Cap Fund—Small Cap Growth Subportfolio, (ii) 3,645,400 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Securities Fund: Fidelity Small Cap Growth Fund, (iii) 822,200 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Securities Fund: Fidelity Small Cap Growth K6 Fund, (iv) 2,022,700 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund, (v) 1,024,065 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Capital Trust: Fidelity Stock Selector Small Cap Fund, (vi) 4,068,100 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Securities Fund: Fidelity Series Small Cap Opportunities Fund, and (vii) 6,283,700 shares of common stock issuable upon conversion of the Series B Preferred Stock held by Fidelity Select Portfolios: Biotechnology Portfolios (collectively, the “Fidelity Funds”). The Fidelity Funds are managed by direct or indirect subsidiaries of FMR LLC. Edward C. Johnson 3d is a Director and the Chairman of FMR LLC and Abigail P. Johnson is a Director, the Vice Chairman and the President of FMR LLC. Members of the family of Edward C. Johnson 3d, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders’ voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders’ voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Edward C. Johnson 3d nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act (Fidelity Funds) advised by Fidelity Management & Research Company (FMR Co), a wholly owned subsidiary of FMR LLC, which power resides with the Fidelity Funds’ Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds’ Boards of Trustees. The address of FMR LLC and associated funds is 245 Summer Street Boston, MA 02210.

(4) Consists of (i) 14,545,450 shares of our common stock issuable upon conversion of our Series A-1 preferred stock and (ii) 715,051 shares of our common stock issuable upon conversion of our Series B preferred stock. Celgene has the power to vote, acquire, hold and dispose of all such shares. Celgene disclaims beneficial ownership of these shares, except to the extent of its pecuniary interest therein. The principal address for Celgene is 86 Morris Avenue, Summit, NJ 07901.

(5) Consists of 12,870,933 shares of our common stock issuable upon conversion of our Series B preferred stock. Dr. Stampacchia is founder, Managing Director, and a member of the five-member investment committee at Omega Funds. Dr. Stampacchia is one of three directors of Omega Fund VI GP Manager, Ltd., the sole general partner of Omega Fund VI GP, L.P., which is the sole General Partner of Omega Fund VI, L.P. Dr. Stampacchia may therefore be deemed to be the beneficial owner of the shares held by Omega

Fund VI, L.P. Omega Fund VI GP Manager, Ltd., Omega Fund VI GP, L.P. and each of the directors of Omega Fund VI GP Manager Ltd. disclaim beneficial ownership of the shares held by Omega Fund VI, L.P. except to the extent of their pecuniary interest therein. The address of Omega Fund VI, L.P. is 888 Boylston Street, Suite 1111, Boston, MA 02199.

(6) Consists of options to purchase 3,139,350 shares of our common stock that are exercisable within 60 days of December 31, 2020.

(7) Consists of options to purchase 609,852 shares of our common stock that are exercisable within 60 days of December 31, 2020.

(8) Consists of options to purchase 528,499 shares of our common stock that are exercisable within 60 days of December 31, 2020.

(9) Consists of options to purchase 1,043,235 shares of our common stock that are exercisable within 60 days of December 31, 2020.

(10) Consists of options to purchase 6,729,835 shares of our common stock that are exercisable within 60 days of December 31, 2020.

DESCRIPTION OF CAPITAL STOCK

The following descriptions are summaries of the material terms of our fifth amended and restated certificate of incorporation, which will be effective upon the closing of this offering and amended and restated bylaws, which will be effective upon the effectiveness of the registration statement of which this prospectus is a part. The descriptions of the common stock and preferred stock give effect to changes to our capital structure that will occur immediately prior to the completion of this offering. We refer in this section to our fifth amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated bylaws as our bylaws.

General

Upon completion of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share, all of which shares of preferred stock will be undesignated.

As of December 31, 2020, 22,155,319 shares of our common stock were outstanding and held by 21 stockholders of record. This amount assumes the conversion of all outstanding shares of our preferred stock into common stock, which will occur immediately prior to the closing of this offering.

Common stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. The shares to be issued by us in this offering will be, when issued and paid for, validly issued, fully paid and non-assessable.

Preferred stock

Immediately prior to the completion of this offering, all outstanding shares of our preferred stock will be converted into shares of our common stock. Upon the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our Company or other corporate action. Immediately after consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Registration rights

Upon the completion of this offering, the holders of shares of our common stock, including those issuable upon the conversion of preferred stock, will be entitled to rights with respect to the registration of these

securities under the Securities Act. These rights are provided under the terms of our Investor Rights Agreement between us and the holders of our preferred stock. The Investor Rights Agreement includes demand registration rights, short-form registration rights, and piggyback registration rights. All fees, costs and expenses of underwritten registrations under this agreement will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

Demand registration rights

Beginning six months after the completion of this offering, the holders of shares of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, will be entitled to demand registration rights. Under the terms of the Investor Rights Agreement, we will be required, upon the written request of a majority of holders of the registrable securities then outstanding that would result in an aggregate offering price of at least $10.0 million, to file a registration statement and to use commercially reasonable efforts to effect the registration of all or a portion of these shares for public resale.

Short-form registration rights

Upon the completion of this offering, the holders of shares of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are also entitled to short-form registration rights. Pursuant to the Investor Rights Agreement, if we are eligible to file a registration statement on Form S-3, upon the written request of at least 20% in interest of these holders to sell registrable securities at an aggregate price of at least $3.0 million, we will be required to use commercially reasonable efforts to effect a registration of such shares. We are required to effect only two registrations in any twelve-month period pursuant to this provision of the investor rights agreement.

Piggyback registration rights

Upon the completion of this offering, the holders of shares of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are entitled to piggyback registration rights. If we register any of our securities either for our own account or for the account of other security holders, the holders of these shares are entitled to include their shares in the registration. Subject to certain exceptions contained in the Investor Rights Agreement, we and the underwriters may limit the number of shares included in the underwritten offering to the number of shares which we and the underwriters determine in our sole discretion will not jeopardize the success of the offering.

Indemnification

Our investor rights agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

Expiration of registration rights

The demand registration rights and short-form registration rights granted under the Investor Rights Agreement will terminate on the fifth anniversary of the completion of this offering.

Anti-takeover effects of our certificate of incorporation and bylaws and Delaware Law

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board composition and filling vacancies

Our certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No written consent of stockholders

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of stockholders

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance notice requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to certificate of incorporation and bylaws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, and limitation of liability must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of a majority of the outstanding shares entitled to vote on the amendment, voting together as a single class, except that the amendment of the provisions relating to notice of stockholder business and nominations and special meetings must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote

thereon as a class, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated preferred stock

Upon the completion of this offering, our certificate of incorporation will provide for authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Exclusive Forum

Our by-laws to be adopted upon the completion of this offering will provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any state law claims for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers and employees to us or our stockholders; (3) any action asserting a claim arising pursuant to the Delaware General Corporation Law or our certificate of incorporation or by-laws (including the interpretation, validity or enforceability thereof) or (4) any action asserting a claim that is governed by the internal affairs doctrine; provided, however, that this provision shall not apply to any causes of action arising under the Securities Act or Exchange Act. In addition, our amended and restated bylaws will provide that, unless we consent in writing to an alternative forum, the federal district courts of the United States shall be the sole and exclusive forum for resolving any complaint asserting a cause of action under the Securities Act (the Federal Forum Provision). Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these forum provisions. These forum provisions may impose additional costs on stockholders, may limit our stockholders' ability to bring a claim in a forum they find favorable, and the designated courts may reach different judgments or results than other courts. In addition, there is uncertainty as to whether our Federal Forum Provision will be enforced, which may impose additional costs on us and our stockholders.

Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting

stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or

- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Nasdaq Global Market listing

We have applied to list our common stock on The Nasdaq Global Market under the trading symbol “IKNA.”

Transfer agent and registrar

The transfer agent and registrar for our common stock will be . The transfer agent and registrar's address is , and its telephone number is .

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our shares. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares outstanding as of December 31, 2020, upon the completion of this offering, shares of our common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options. Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below, and shares of our common stock are restricted shares of common stock subject to time-based vesting terms.

Rule 144

In general, a person who has beneficially owned restricted stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale and (ii) we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Persons who have beneficially owned restricted shares for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares then outstanding, which will equal approximately shares immediately after this offering assuming no exercise of the underwriters' option to purchase additional shares, based on the number of shares outstanding as of December 31, 2020; or
- the average weekly trading volume of our common stock on The Nasdaq Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;

provided, in each case, that we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the effectiveness of the registration statement of which this prospectus forms a part before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under "Underwriting" included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Lock-Up Agreements

We, all of our directors and executive officers, and the holders of substantially all of our capital stock and securities convertible into or exchangeable for our capital stock have entered into lock-up agreements with the

underwriters and/or are subject to market standoff agreements or other agreements with us, which prevents them from selling any of our common stock or any securities convertible into or exercisable or exchangeable for common stock for a period of not less than 180 days from the date of this prospectus without the prior written consent of the representatives, subject to certain exceptions. See the section entitled “Underwriting” appearing elsewhere in this prospectus for more information.

Registration rights

Upon completion of this offering, certain holders of our securities will be entitled to various rights with respect to registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration statement. See the section entitled “Description of Capital Stock—Registration rights” appearing elsewhere in this prospectus for more information.

Equity incentive plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register our shares issued or reserved for issuance under our equity incentive plans. The first such registration statement is expected to be filed soon after the date of this prospectus and will automatically become effective upon filing with the SEC. Accordingly, shares registered under such registration statement will be available for sale in the open market, unless such shares are subject to vesting restrictions with us or the lock-up restrictions described above.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following discussion is a summary of material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. For purposes of this discussion, a non-U.S. holder means a beneficial owner of our common stock that is, for U.S. federal income tax purposes:

- a non-resident alien individual;
- a corporation or any other organization taxable as a corporation for U.S. federal income tax purposes that is created or organized in or under laws other than the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is not subject to U.S. federal income tax on a net income basis; or
- a trust that (1) (a) has not made an election to be treated as a U.S. person under applicable U.S. Treasury regulations and (b) either (i) is not subject to the primary supervision of a court within the United States or (ii) is not subject to the substantial control of one or more U.S. persons or (2) the income of which is not subject to U.S. federal income tax on a net income basis .

This discussion does not address the tax treatment of partnerships or other entities or arrangements that are treated as pass-through entities for U.S. federal income tax purposes or persons that hold their shares of our common stock through partnerships or such other pass-through entities. The tax treatment of a partner in a partnership or other entity or arrangement that is treated as a pass-through entity for U.S. federal income tax purposes generally will depend upon the status of the partner and the activities of the partnership. A partner in a partnership or an investor in any other pass-through entity that will hold our common stock should consult his, her or its tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the Code, existing and proposed U.S. Treasury regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus and, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any such change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance that the IRS will not challenge one or more of the tax consequences described herein. We assume in this discussion that a non-U.S. holder holds shares of our common stock as a “capital asset” within the meaning of Section 1221 of the Code, which is generally property held for investment.

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder’s individual circumstances, including the alternative minimum tax, the Medicare tax on net investment income, the rules relating to “qualified small business stock,” any U.S. federal tax other than the income tax (including, for example, the estate or gift tax), or any aspects of U.S. state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

1. insurance companies;
2. tax-exempt or governmental organizations;
3. financial institutions;
4. brokers or dealers in securities;
5. regulated investment companies;

6. pension plans;
7. “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
8. “qualified foreign pension funds,” or entities wholly owned by a “qualified foreign pension fund”;
9. persons deemed to sell our common stock under the constructive sale provisions of the Code;
10. persons that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
11. persons that hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
12. U.S. expatriates.

This discussion is for general information only and is not tax advice. Accordingly, all prospective non-U.S. holders of our common stock should consult their tax advisors with respect to the U.S. federal, state, local, estate and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

Distributions on our common stock

As described in the “Dividend Policy” section above, we do not intend to pay any dividends in cash or property on our common stock to our stockholders stock in the foreseeable future. Distributions of cash or property, if any, on shares of our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a return of the non-U.S. holder’s investment, up to such holder’s adjusted tax basis in the shares of common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in “Gain on sale, exchange or other taxable disposition of shares of our common stock.” Any such distributions will also be subject to the discussion below under the section titled “Withholding and information reporting requirements—FATCA.”

Subject to the discussion in the following two paragraphs in this section, dividends paid to a non-U.S. holder generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate specified by an applicable income tax treaty between the United States and such holder’s country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or such lower rate as specified by an applicable income tax treaty between the United States and such holder’s country of residence.

A non-U.S. holder of shares of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder’s country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or a successor form) to the applicable withholding agent and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may generally obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS.

Gain on sale, exchange or other taxable disposition of shares of our common stock

Subject to the discussion below under "Withholding and information reporting requirements—FATCA," a non-U.S. holder generally will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other taxable disposition of shares of our common stock unless:

1. the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed-base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on our common stock" also may apply;

2. the non-U.S. holder is a nonresident alien individual who is present in the United States for a period or periods aggregating 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or

3. we are, or have been, at any time during the five-year period preceding such sale or other taxable disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market, within the meaning of the relevant provisions of the Code, and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a "U.S. real property holding corporation" only if the fair market value of its "U.S. real property interests" (as defined in the Code and applicable U.S. Treasury regulations) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a "U.S. real property holding corporation" for U.S. federal income tax purposes, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

Backup withholding and information reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on shares of our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on shares of our common stock. Generally, a non-U.S. holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable IRS Form W-8), or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in "Distributions on our common stock," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of shares of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or non-U.S., unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment

of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them. Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS in a timely manner.

Withholding and information reporting requirements—FATCA

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax at a rate of 30% on payments of dividends on our common stock paid to a foreign entity unless (i) if the foreign entity is a "foreign financial institution," such foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a "foreign financial institution," such foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. Such withholding may also apply to payments of gross proceeds of sales or other dispositions of shares of our common stock, although under proposed U.S. Treasury regulations (the preamble to which specifies that taxpayers, including withholding agents, are generally permitted to rely on them pending finalization), no withholding will apply to payments of gross proceeds. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of this withholding tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their tax advisors regarding the possible implications of this legislation on their investment in our common stock and the entities through which they hold our shares of common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated , 2021, among us and Jefferies LLC, Cowen and Company, LLC, Credit Suisse Securities (USA) LLC and William Blair & Company, L.L.C., as the representatives of the underwriters in this offering named below, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the respective number of shares of common stock shown opposite its name below:

Underwriter	Number of Shares
Jefferies LLC	
Cowen and Company, LLC	
Credit Suisse Securities (USA) LLC	
William Blair & Company, L.L.C.	
Total	

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the completion of this offering, they currently intend to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock subject to their acceptance of the shares of common stock from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers, which may include the underwriters, at that price less a concession not in excess of $ per share of common stock. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of $ per share of common stock to certain brokers and dealers. After the offering, the initial public offering price, concession and reallowance to dealers may be reduced by the representatives. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share		Total	
	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	$	$	$	$
Underwriting discounts and commissions paid by us	$	$	$	$
Proceeds to us, before expenses	$	$	$	$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $. We have also agreed to pay the filing fees incident to, and the fees and disbursements of counsel for the underwriters in connection with, the required review by the Financial Industry Regulatory Authority, Inc. in an amount up to $.

Determination of Offering Price

Prior to this offering, there has not been a public market for our common stock. Consequently, the initial public offering price for our common stock will be determined by negotiations between us and the representatives. Among the factors to be considered in these negotiations will be prevailing market conditions, our financial information, market valuations of other companies that we and the underwriters believe to be comparable to us, estimates of our business potential, the present state of our development and other factors deemed relevant.

We offer no assurances that the initial public offering price will correspond to the price at which the common stock will trade in the public market subsequent to the offering or that an active trading market for the common stock will develop and continue after the offering.

Listing

We intend to apply to list our common stock on The Nasdaq Global Market under the trading symbol "IKNA."

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of shares from us at the public offering price set forth on the cover page of this prospectus, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares proportionate to that underwriter's initial purchase commitment as indicated in the table above. This option may be exercised only if the underwriters sell more shares than the total number set forth on the cover page of this prospectus.

No Sales of Similar Securities

We, our officers, directors and holders of all or substantially all our outstanding capital stock and other securities have agreed, subject to specified exceptions, not to directly or indirectly:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open "put equivalent position" within the meaning of Rule 16a-l(h) under the Securities Exchange Act of 1934, as amended; or

- otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially; or
- publicly announce an intention to do any of the foregoing for a period of 180 days after the date of this prospectus without the prior written consent of certain of the representatives.

This restriction terminates after the close of trading of the common stock on and including the 180th day after the date of this prospectus

Certain of the representatives may, together in their sole discretion and at any time or from time to time before the termination of the 180-day period release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement, providing consent to the sale of shares prior to the expiration of the lock-up period.

Stabilization

The underwriters have advised us that, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either “covered” short sales or “naked” short sales.

“Covered” short sales are sales made in an amount not greater than the underwriters’ option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

“Naked” short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriter’s purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriters may also engage in passive market making transactions in our common stock on The Nasdaq Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their respective affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses. Jefferies LLC acted as a placement agent in connection with the private placement of our Series B preferred stock and received cash compensation in connection therewith. Affiliates of Cowen and Company, LLC, an underwriter of this offering, beneficially own an aggregate of approximately 1% of our common stock, on an as-converted basis and fully diluted basis, as of December 31, 2020. Such shares were acquired during the sale of our Series B preferred stock in December 2020.

In the ordinary course of their various business activities, the underwriters and certain of their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own accounts and for the accounts of their respective customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

Canada

Resale Restrictions

The distribution of shares of our common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare

and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the shares of common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian Purchasers

By purchasing shares of our common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106—*Prospectus Exemptions*,
- the purchaser is a "permitted client" as defined in National Instrument 31-103—*Registration Requirements, Exemptions and Ongoing Registrant Obligations*,
- where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

Conflicts of Interest

Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—*Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this prospectus.

Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus (including any amendment thereto) such as this prospectus contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of our shares of common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares in their particular circumstances and about the eligibility of the shares for investment by the purchaser under relevant Canadian legislation.

Australia

This prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission

and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

You confirm and warrant that you are either:

- a “sophisticated investor” under section 708(8)(a) or (b) of the Corporations Act;
- a “sophisticated investor” under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant’s certificate to the company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made; or
- a “professional investor” within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor or professional investor under the Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the shares issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

European Economic Area and United Kingdom

In relation to each member state of the European Economic Area, each referred to herein as a Relevant State, no offer of any securities which are the subject of the offering contemplated by this prospectus has been or will be made to the public in that Relevant State other than any offer where a prospectus has been or will be published in relation to such securities that has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the relevant competent authority in that Relevant State in accordance with the Prospectus Regulation, except that an offer of such securities may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- to any legal entity which is a “qualified investor” as defined in Article 2(e) of the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), as permitted under the Prospectus Regulation, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of securities shall require the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to any securities in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129 (as amended).

This European Economic Area selling restriction is in addition to any other selling restrictions set out below.

PRC

This prospectus has not been and will not be circulated or distributed in the PRC, and no securities may be offered or sold, or will be offered or sold, to any person for re-offering or resale, directly or indirectly, to any resident of the PRC except pursuant to applicable laws and regulations of the PRC.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong, or SFO, and any rules made under that Ordinance; or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong, or CO, or which do not constitute an offer to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Israel

This prospectus does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the shares is directed only at, (i) a limited number of persons in accordance with section 15A of the Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals", each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case purchasing for their own accounts or, where permitted under the Addendum, for the accounts of their respective clients who are investors listed in the Addendum). Qualified investors will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means, unless otherwise provided herein, any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been and will not be lodged or registered with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or the invitation for subscription or purchase of the securities may not be issued, circulated or distributed, nor may the

securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to the public or any member of the public in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person as defined under Section 275(2), or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions, specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor as defined under Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares of common stock pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(e) of the Prospectus Regulation that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, referred to herein as the Order, and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated. Any investment or investment activity to which this prospectus relates is available only to relevant persons and will only be engaged in with relevant persons. Any person who is not a relevant person should not act or rely on this prospectus or any of its contents.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters related to this offering will be passed upon for the underwriters by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements at December 31, 2018 and December 31, 2019, and for each of the two years in the period ended December 31, 2019, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 (File Number 333-) under the Securities Act with respect to the common stock we are offering by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our common stock, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

Upon the completion of this offering, we will be subject to the informational requirements of the Exchange Act and will file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov. We also maintain a website at www.ikenaoncology.com. Upon completion of this offering, you may access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendment to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC.

Index to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Ikena Oncology, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Ikena Oncology, Inc. (the Company) as of December 31, 2018 and 2019, and the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' deficit and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2019, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst and Young LLP

We have served as the Company's auditor since 2019.

Boston, Massachusetts
January 8, 2021

IKENA ONCOLOGY, INC.

Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31, 2018	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 18,156	$ 82,083
Prepaid expenses and other current assets	1,824	3,122
Total current assets	19,980	85,205
Property and equipment, net	696	769
Total assets	$ 20,676	$ 85,974
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 2,267	$ 935
Accrued expenses and other current liabilities	1,557	2,679
Deferred revenue	—	20,683
Total current liabilities	3,824	24,297
Deferred rent, net of current portion	116	—
Deferred revenue, net of current portion	—	44,273
Total liabilities	3,940	68,570
Commitments and contingencies (Note 14)		
Redeemable convertible preferred stock (Series A and A-1), $0.001 par value, 61,181,818 shares authorized, issued and outstanding (liquidation preference of $61,181,818) as of December 31, 2018 and 75,727,268 shares authorized, issued and outstanding (liquidation preference $75,727,268) as of December 31, 2019	62,576	78,867
Stockholders' deficit:		
Common stock, $0.001 par value; 90,909,088 shares authorized, 18,818,179 issued and outstanding as of December 31, 2018 and 113,372,392 shares authorized, 18,967,681 issued and outstanding as of December 31, 2019	19	19
Additional paid-in capital	4,407	5,601
Accumulated deficit	(50,266)	(67,083)
Total stockholders' deficit	(45,840)	(61,463)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 20,676	$ 85,974

The accompanying notes are an integral part of these consolidated financial statements.

IKENA ONCOLOGY, INC.

Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share amounts)

	Year Ended December 31,	
	2018	2019
Revenue		
Research and development revenue under collaboration agreement	$ —	$ 13,753
Service revenue (related party)	990	—
Total revenue	990	13,753
Operating expenses		
Research and development	38,986	24,938
General and administrative	2,898	7,307
Total operating expenses	41,884	32,245
Loss from operations	(40,894)	(18,492)
Other income	29	1,675
Net loss and comprehensive loss	$ (40,865)	$ (16,817)
Net loss per share attributable to common stockholders, basic and diluted	$ (3.35)	$ (0.89)
Weighted-average shares of common stock outstanding, basic and diluted	12,193,711	18,945,673

The accompanying notes are an integral part of these consolidated financial statements.

IKENA ONCOLOGY, INC.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balance at December 31, 2017	28,000,000	$27,832	11,250,000	$ 11	$ 83	$ (9,401)	$ (9,307)
Issuance of preferred stock in connection with the acquisition of Arrys Therapeutics, Inc.	33,181,818	34,744	—	—	—	—	—
Issuance of common stock in connection with the acquisition of Arrys Therapeutics, Inc.	—	—	6,818,179	7	4,011	—	4,018
Vesting of restricted common stock	—	—	750,000	1		—	1
Stock-based compensation	—	—	—	—	313	—	313
Net loss and comprehensive loss	—	—	—	—	—	(40,865)	(40,865)
Balance at December 31, 2018	61,181,818	62,576	18,818,179	19	4,407	(50,266)	(45,840)
Issuance of preferred stock in connection with private placement	14,545,450	16,291	—	—	—	—	—
Exercise of stock options	—	—	149,502	—	25	—	25
Stock-based compensation	—	—	—	—	1,169	—	1,169
Net loss and comprehensive loss	—	—	—	—	—	(16,817)	(16,817)
Balance at December 31, 2019	75,727,268	$78,867	18,967,681	$ 19	$ 5,601	$ (67,083)	$ (61,463)

The accompanying notes are an integral part of these consolidated financial statements.

IKENA ONCOLOGY, INC.

Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31, 2018	2019
Cash flows from operating activities		
Net loss	$(40,865)	$(16,817)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities		
Depreciation	179	243
Stock-based compensation	314	1,169
Non-cash research and development expense for in-process research and development acquired in acquisition	28,463	—
Non-cash rent expense	243	(121)
Changes in operating assets and liabilities		
Prepaid expenses and other current assets	(990)	(1,297)
Accounts payable	602	(1,332)
Accrued expenses and other current liabilities	446	1,126
Deferred revenue	—	64,956
Net cash flows (used in) provided by operating activities	(11,608)	47,927
Cash flows from investing activities		
Cash obtained in asset acquisition	11,274	—
Purchases of property and equipment	(305)	(316)
Net cash flows provided by (used in) investing activities	10,969	(316)
Cash flows from financing activities		
Proceeds from issuance of preferred stock in connection with private placement	—	16,291
Proceeds from exercise of stock options	—	25
Net cash flows provided by financing activities	—	16,316
Net (decrease) increase in cash and cash equivalents	(639)	63,927
Cash and cash equivalents, beginning of year	18,795	18,156
Cash and cash equivalents, end of year	$ 18,156	$ 82,083
Supplemental disclosure of non-cash activities		
Assets obtained in asset acquisition	$ 219	$ —
Liabilities assumed in asset acquisition	$ 911	$ —
Fair value of equity instruments issued in connection with asset acquisition	$ 38,762	$ —
Vesting of restricted common stock	$ 1	$ —
Transaction costs for asset acquisition in accounts payable	$ 213	$ —

The accompanying notes are an integral part of these consolidated financial statements.

IKENA ONCOLOGY, INC.

Notes to Consolidated Financial Statements

Note 1. Description of Business

The Company is a targeted oncology company focused on developing novel cancer therapies targeting key signaling pathways that drive the formation and spread of cancer. The Company's programs focus on key cancer driver pathways that are well-validated in scientific literature but lack approved or effective therapies and therefore have the potential to address high unmet medical needs. By leveraging the Company's deep understanding of discovery chemistry, translational science, and patient-centric drug development, it has built a deep pipeline of wholly owned and partnered programs focused on genetically defined or biomarker-driven cancers, which enables it to target specific patient populations that the Company believes are most likely to respond to treatment with its product candidates. Since the Company commenced operations in 2016, it has discovered or developed five oncology programs that include four product candidates in either IND-enabling studies or clinical development.

The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry, including, but not limited to, development by competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations and ability to secure additional capital to fund operations. Product candidates currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Because of the numerous risks and uncertainties associated with product development, the Company is unable to predict the timing or amount of increased expenses or when or if the Company will be able to achieve or maintain profitability. Even if the Company is able to generate revenue from product sales, the Company may not become profitable. If the Company fails to become profitable or is unable to sustain profitability on a continuing basis, then the Company may be unable to continue its operations at planned levels and be forced to reduce or terminate its operations. The Company expects to incur substantial operating losses and negative cash flows from operations for the foreseeable future.

In accordance with Accounting Standards Codification ("ASC") 205-40, *Going Concern*, the Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the consolidated financial statements are issued. As of December 31, 2019, the Company had an accumulated deficit of $67.1 million. During the year ended December 31, 2019, the Company incurred a loss of $16.8 million and provided $48.0 of cash in operations. The Company expects to continue to generate operating losses in the foreseeable future. The Company expects that its cash and cash equivalents of $82.1 million at December 31, 2019, together with the $3.7 million of cash received through the acquisition of Amplify Medicines, Inc. ("Amplify") on October 1, 2020 and the net proceeds of $116.4 million from the issuance of Series B redeemable convertible preferred stock on December 21, 2020, will be sufficient to fund its operating expenses and capital expenditure requirements for at least the next 12 months from issuance of the consolidated financial statements.

In addition, the Company expects that it will seek additional funding through public or private financings, debt financing, collaboration agreements or government grants. The inability to obtain funding, as and when needed, could have a negative impact on the Company's financial condition and ability to pursue its business strategies, which may include amending, delaying, limiting, reducing, or terminating planned activities related to its product candidates.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation: The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Arrys Therapeutics, Inc. ("Arrys") and Ikena Oncology Securities

Corporation. All intercompany balances and transactions have been eliminated in consolidation. These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the ASC and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB").

Use of Estimates: The preparation of the Company's financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Estimates and judgments are based on historical information and other market-specific or various relevant assumptions, including in certain circumstances, future projections, that management believes to be reasonable under the circumstances. Actual results could differ materially from estimates. Significant estimates and assumptions are used for, but not limited to the accruals for research and development expenses, research and development revenue under a collaboration agreement, stock-based compensation expense and the determination of fair value of equity instruments and intangible assets acquired in an asset acquisition. The Company utilized various valuation methodologies in accordance with the framework of the 2013 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its equity awards. The Company evaluates its estimates and assumptions on an ongoing basis. All revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Segments: Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker ("CODM") in deciding how to allocate resources to an individual segment and in assessing performance. The Company's CODM is its Chief Executive Officer. The Company has determined it operates in a single operating segment and has one reportable segment. All long-lived assets of the Company reside in the United States.

Concentration of Credit Risk and of Significant Suppliers: Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents. At December 31, 2019 and 2018, substantially all of the Company's cash and cash equivalents were deposited at one highly rated financial institution. The Company maintains balances in operating accounts above federally insured limits. The Company has not experienced any losses on such accounts and does not believe it is exposed to any significant credit risk on cash and cash equivalents.

The Company is dependent on third-party manufacturers and clinical research organizations to supply products and provide services for research and development activities in its programs. In particular, the Company relies and expects to continue to rely on a small number of manufacturers to supply it with its requirements for the active pharmaceutical ingredients and formulated drugs related to these programs. These programs could be adversely affected by a significant interruption in the supply of active pharmaceutical ingredients and formulated drugs.

Fair Value of Financial Instruments: The amounts reported for cash equivalents, accounts payable and accrued expenses approximate fair value because of their short maturities. Fair value is estimated based on a three-tier fair value hierarchy to prioritize the inputs used in our fair value measurements. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets for identical assets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring us to develop our own assumptions. The Company recognizes transfers between levels of the fair value hierarchy on the date of the event or change in circumstances that caused the transfer.

Cash and Cash Equivalents: The Company considers all short-term, highly liquid investments with original maturities of 90 days or less at acquisition date to be cash equivalents.

Property and Equipment: Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful life of each asset. Lab equipment is depreciated over five years. Electronic equipment and software are depreciated over three years. Leasehold improvements are amortized over the shorter of their useful life or lease term. When an item is sold or retired, the costs and related accumulated depreciation are eliminated, and the resulting gain or loss, if any, is credited or charged to income in the statement of operations. Repairs and maintenance costs are expensed as incurred.

Long-lived Assets: Long-lived assets consist of property and equipment. The Company reviews the recoverability of its long-lived assets, including the related useful lives, whenever events or changes in circumstances indicate that the carrying amount of a long-lived asset might not be recoverable, based on undiscounted cash flows. If such assets are considered to be impaired, an impairment loss is recognized and is measured as the amount by which the carrying amount of the assets exceed their estimated fair value, which is measured based on the projected discounted future net cash flows arising from the assets.

Income Taxes: The Company utilizes the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities using the enacted statutory tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Recognition of deferred tax assets is limited to amounts for which, in the opinion of management, realization is considered more likely than not in future periods.

Revenue Recognition: The Company has generated revenue from a collaboration agreement as well as service agreements with related parties.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, or Topic 606, which amended the guidance for accounting for revenue from contracts with customers. Under Topic 606, an entity recognizes revenue when its customer obtains control of promised goods or services in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. The Company adopted Topic 606 in 2018.

To determine revenue recognition for arrangements that are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. At contract inception, once the contract is determined to be within the scope of Topic 606, the Company assesses the goods or services promised within each contract and determine those that are performance obligations, then assesses whether each promised good or service is distinct. When the Company offers options for additional goods or services, such as to receive a license for intellectual property or for additional goods or services, the Company evaluates whether such options contain material rights that should be treated as additional performance obligations. Once performance obligations are identified, the Company then recognizes as revenue the amount of the transaction price that the Company allocated to the respective performance obligation when (or as) each performance obligation is satisfied, either at a point in time or over time. If the performance obligation is satisfied over time, the Company recognizes revenue based on the use of an input method.

Amounts received prior to revenue recognition are recorded as deferred revenue. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as current portion of deferred revenue in the accompanying consolidated balance sheets. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

As of December 31, 2018, the Company recognized $1 million of service revenue from related parties for fees associated to services performed by the Company, which was generally based on the cost of providing such services and which may have included a profit margin.

As of December 31, 2019, the Company had one collaborative agreement with Bristol-Myers Squibb ("BMS"), which the Company entered into in January 2019 (the "BMS Collaboration Agreement"). For a complete discussion of the accounting related to BMS Collaboration Agreement, see Note 8, Collaboration Agreement with BMS.

Research and Development Expense: Research and development costs are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities, including salaries, stock-based compensation and benefits, facilities costs, depreciation, third-party license fees, acquisition of technology, and external costs of outside vendors engaged to conduct preclinical development activities and trials. Research and development expense also includes the write-off of acquired in-process research and development ("IPR&D") assets with no alternative future use.

Asset Acquisitions: In 2018, the Company adopted ASU 2017-01, *Business Combinations (ASU 2017-01)*, which clarified the definition of a business. The Company measures and recognizes asset acquisitions that are not deemed to be business combinations based on the cost to acquire the assets, which includes transaction costs, and the consideration is allocated to the items acquired based on a relative fair value methodology. Goodwill is not recognized in asset acquisitions. In an asset acquisition, the cost allocated to acquire IPR&D with no alternative future use is charged to research and development expense at the acquisition date.

Stock-based Compensation: The Company's stock-based compensation program grants awards that may include stock options, restricted stock awards, restricted stock units, and other stock-based awards. The fair values of stock option grants are estimated as of the date of grant using a Black-Scholes option valuation model. The fair values of restricted stock awards and restricted stock units are based on the fair value of the Company's common stock on the date of grant. The estimated fair values of the awards are expensed over the requisite service period, which is generally the vesting period of the award. For service-based awards that are subject to graded vesting, companies have the option to recognize compensation expense either on a straight-line or accelerated basis. The Company has elected to recognize compensation expense for these awards on a straight-line basis. The Company accounts for forfeitures as they occur. The Company classifies stock-based compensation expense in our consolidated statements of operations and comprehensive loss in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified.

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company has utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation* (the "Practice Aid"), to estimate the fair value of its common stock. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the superior rights and preferences of securities senior to the Company's common stock at the time of, and the likelihood of, achieving a liquidity event, such as an initial public offering or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

The Company's expected stock price volatility assumption is based on volatilities of similar entities whose share or option prices are publicly available. The Company uses the simplified method to estimate the expected life assumption. The risk-free interest rate is based on the yield of U.S. Treasury securities consistent with the expected life of the option. No dividend yield was assumed as the Company does not intend to pay dividends on its common stock.

Comprehensive Loss: Comprehensive loss includes net loss as well as other changes in stockholders' equity (deficit) that result from transactions and economic events other than those with stockholders. For the years ended December 31, 2019 and 2018, there were no differences between net loss and comprehensive loss.

Deferred Issuance Costs: Deferred issuance costs consist of legal, accounting and other third-party fees that are directly associated with in-process equity financings and remain deferred issuance costs until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction to the proceeds generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the consolidated statements of operations and comprehensive loss.

Emerging Growth Company Status: The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such a time as those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that the Company no longer is an emerging growth company or affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, these financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Recent Accounting Pronouncements:

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). The guidance in ASU 2016-02 supersedes the current leasing guidance, which will require lessees to recognize right-of use assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. As amended, ASU 2016-02 is effective for financial statement periods beginning after December 15, 2021. The Company adopted ASU 2016-02, as amended, by applying the modified retrospective approach for leases existing at, and entered into after, January 1, 2020. The adoption of this standard resulted in the recognition of right-of-use assets and operating lease liabilities of $1.0 million and $1.0 million respectively, on the Company's consolidated balance sheet upon adoption on January 1, 2020.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326)—Measurement of Credit Losses on Financial Instruments*, which has been subsequently amended ("ASU 2016-13"). The provisions of ASU 2016-13 modify the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology and require a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The Company early adopted ASU 2016-13 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"). The Company adopted ASU 2018-13 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In August 2018, the FASB issued ASU 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"). The new standard will align the requirements for capitalizing implementation costs for hosting arrangements (services) with costs for internal-use software (assets). As a result, certain implementation costs incurred in hosting arrangements will be deferred and amortized. The Company adopted ASU 2018-15 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In April 2019, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments* ("ASU 2019-04"). This update provides clarifications for three topics related to financial instruments accounting, some of which apply to the Company. The Company adopted ASU 2019-04 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740)* ("ASU 2019-12") as part of its initiative to reduce complexity in the accounting standards. The amendments in ASU 2019-12 eliminate certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 also clarifies and simplifies other aspects of the accounting for income taxes. The Company adopted ASU 2019-12 effective January 1, 2020 and it did not have a material impact on the Company.

Recently Adopted Accounting Pronouncements:

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash Payments* ("ASU 2016-15") to clarify how entities should present restricted cash and restricted cash equivalents in their statements of cash flows. Under this new update, entities are required to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in their statements of cash flows. The Company adopted ASU 2016-15 in 2019 and there was not a material impact on the consolidated financial statements.

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by us as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on our consolidated financial statements and disclosures.

Note 3. Arrys Acquisition

On December 18, 2018 (the "Acquisition Date"), the Company acquired Arrys. Pursuant to the terms and conditions of the Agreement and Plan of Merger ("the Arrys Merger Agreement"), each share of Arrys common and preferred stock, issued and outstanding immediately prior to the Acquisition Date, was cancelled and converted into 1.5801 fully paid and non-assessable shares of the Company's common stock or Preferred Series A-1 stock, respectively. In addition, each outstanding and unexercised option to acquire Arrys common stock was cancelled and converted into 1.5801 options to acquire the Company's common stock with a corresponding adjustment to the exercise price. As a result of the Arrys Merger Agreement, the Company issued equity instruments with a total fair value of $38.8 million consisting of 6,818,179 shares of common stock, 33,181,818 shares of Series A-1 Preferred Stock, and options to purchase 644,713 shares of common stock. In addition, the Company also issued options to purchase 2,218,227 shares of its common stock which were unvested at the Acquisition Date. The unvested options require the recipients to perform future services on behalf of the Company in order to vest in the awards. As the unvested options represent payments for future services, they are not considered as part of the initial purchase price consideration and will be expensed as the services are provided consistent with the Company's stock-based compensation accounting policies.

The Company first assessed if the acquisition represented a transaction which was under common control or common ownership under both the variable interest entity guidance and the voting interest entity guidance. While Arrys is a related party to the Company, it is not under common control or common ownership with the Company. The Company next assessed if Arrys represented an asset or a business under FASB ASC Topic 805, *Business Combinations ASC 805*, as amended by ASU 2017-01. Under ASC 805, the Company determined that Arrys did not constitute a business since substantially all of the fair value of the gross assets acquired is concentrated in a single asset, the intellectual property for the lead product candidate in development by Arrys, which is in Phase 1 clinical trials. The intellectual property acquired from Arrys is at an early stage of development and will require a significant investment of time and capital for development. There is no assurance that the Company will be successful in completing the additional research and development activities. The intellectual property acquired is considered to have no alternative future use, and therefore is expensed as incurred. The total transaction price, which includes consideration issued and the issuance costs of $284 thousand

was allocated to the assets acquired and liabilities assumed on a relative fair value basis. The transaction price was determined and allocated as follows (in thousands):

Transaction Price	
Fair value of equity instruments issued	$38,762
Transaction costs incurred	284
Total transaction price	$39,046
Transaction Price Allocation	
In-process research and development	$28,463
Cash acquired	11,274
Prepaid expenses and other assets	219
Liabilities assumed	(910)
Total transaction price	$39,046

The fair value of the consideration issued and the fair value of the assets acquired and liabilities assumed was based on a probability weighted model that utilized three different scenarios that considered both a scenario that utilized an asset approach and two scenarios that utilized a market approach.

The acquired in-process research and development of $28,463 thousand did not have an alternative future use and was charged to research and development expense at the acquisition date.

Note 4. Fair Value Measurements

The following table presents information about the Company's financial assets measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values (in thousands):

	Fair Value Measurements as of December 31, 2018 using:			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$6,689	$ —	$ —	$6,689
Total cash equivalents	$6,689	$ —	$ —	$6,689

	Fair Value Measurements as of December 31, 2019 using:			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$81,832	$ —	$ —	$81,832
Total cash equivalents	$81,832	$ —	$ —	$81,832

The acquisition of Arrys required the determination of fair value on a non-recurring basis. The fair value of the equity consideration issued is considered to be a level three estimate in the fair value hierarchy. In addition, the consideration was allocated to the assets acquired and liabilities assumed on a relative fair value basis. The determination of the fair value of the assets acquired and liabilities assumed is also considered to be a level three estimate in the fair value hierarchy. Reasonable changes in the assumptions used in the valuation models, including the weighting between the three scenarios utilized to value the equity instruments, could result in materially different values.

Note 5. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following at December 31, 2018 and 2019 (in thousands):

	December 31,	
	2018	2019
Clinical, manufacturing and scientific development	$1,242	$1,856
Other	582	1,266
	$1,824	$3,122

Note 6. Property and Equipment, net

Property and equipment consisted of the following at December 31, 2018 and 2019 (in thousands):

	December 31,	
	2018	2019
Property and equipment:		
Lab equipment	$ 657	$ 951
Leasehold improvements	160	160
Electronic equipment and software	24	46
Total property and equipment	841	1,157
Less: accumulated depreciation	(145)	(388)
Property and equipment, net	$ 696	$ 769

Depreciation expense for the years ended December 31, 2018 and December 31, 2019 was $179 thousand and $243 thousand, respectively. There were no impairments for the years ended December 31, 2018 and 2019.

Note 7. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following at December 31, 2018 and 2019 (in thousands):

	December 31,	
	2018	2019
Employee compensation	$ 750	$1,040
Research and development expenses	356	1,174
Professional fees	325	344
Current portion of deferred rent	126	121
	$1,557	$2,679

Note 8. Collaboration Agreement and Stock Purchase Agreement with BMS

In January 2019, the Company entered into the BMS Collaboration Agreement with Celgene Corporation, which was acquired by BMS in November 2019, whereby the Company will carry out initial research and development activities with the goal of identifying and developing drug candidates for certain cancer types. Concurrent with execution of the BMS Collaboration Agreement, the Company entered into a stock purchase agreement with BMS, which resulted in the issuance of 14,545,450 shares of Series A-1 Preferred Stock (the “Stock Purchase Agreement”).

Agreement Structure

Under the BMS Collaboration Agreement, the Company will conduct exploratory and discovery activities, with the goal of identifying product candidates for certain targets, which are the kynurenine, which the Company is developing as IK-412, and the aryl hydrocarbon receptor ("AHR"), which the Company is developing as IK-175. The Company is obligated to complete research and development activities through completion of a Phase 1b clinical trial for each program. BMS has the option to receive a global-development, manufacture and commercialization license for the product candidate. Subsequent to the delivery of a license, BMS is responsible for the worldwide development, manufacturing and commercialization of these product candidates.

BMS paid the Company a total of $95.0 million in aggregate upfront consideration related to the BMS Collaboration Agreement and Stock Purchase Agreement. The Company is eligible to receive $50.0 million, in case of an exercise of its option with respect to IK-175, and $40.0 million, in case of an exercise of its option with respect to IK-412. If the Company does not complete a Phase 1b clinical trial by the end of the research term, the Company may provide a data package to BMS to support the decision to exercise the option for an additional $0.25 million. Upon the exercise of the delivery of each license, the Company becomes eligible to receive up to $450 million in milestone payments as well as a tiered royalty on worldwide sales from the high single to low teen digits.

Accounting Considerations of the Agreement

The BMS Collaboration Agreement and the Stock Purchase Agreement were executed concurrently and in contemplation of each other. The issuance of Series A-1 Preferred Stock was initially accounted for at fair value. The purchase price for the Series A-1 Preferred Stock was considered to be at a discount from fair value, and therefore $1.8 million of the upfront from the BMS Collaboration Agreement was allocated to the equity arrangement.

The Company determined that the BMS Collaboration Agreement represented a contract with a customer and should be accounted for in accordance with ASC 606. The Company identified the two performance obligations, which are research and development services for IK-175 and IK-412. The options to receive worldwide development and commercialization licenses for the two targets and the option to receive manufacturing services in the future were determined to not provide any material rights to the customer and are therefore not considered to be performance obligations. The arrangement also contains certain di minimis items, including participation on joint oversight committees.

The Company identified $78.7 million of total transaction price which represents the upfront consideration allocated to the revenue arrangement. Additional consideration to be paid to the Company upon exercise of a right to receive a license or potential milestone and royalty payments are excluded from the transaction price as they relate to amounts that can only be achieved subsequent to the exercise of an options and are outside of the initial contact term.

Based on the distinct performance obligations identified above, the Company allocated the $78.7 million transaction price based on relative estimated standalone selling prices of each of its performance obligations as follows:

- $41.2 million for research and development services for IK-175; and
- $37.5 million for research and development services for IK-412.

The Company determined the estimated standalone selling price for the research and development services based on internal estimates of the costs to perform the services, including expected internal expenses and expenses with third parties, marked up to include a reasonable profit margin. Significant inputs used to determine the total expense of the research and development activities include the length of time required and the number and cost of various studies that will be performed to complete the applicable development plan.

The Company is recognizing revenue related to each of its performance obligations as the research and development services are performed. The Company recognizes revenue related to research and development services performed using an input method by calculating costs incurred at each period end relative to total costs expected to be incurred.

During the year ended December 31, 2019, the Company recognized revenue of $13.8 million from the BMS Collaboration Agreement. During the year ended December 31, 2018, the Company did not recognize any research and development revenue under the BMS Collaboration Agreement. The consolidated balance sheet at December 31, 2019 included deferred revenue of $65.0 million related this agreement, of which $20.7 million and $44.3 million were classified as current and non-current, respectively. This amount is expected to be recognized as performance obligations are satisfied through the completion of the research and development services for IK-175 and IK-412.

Note 9. Redeemable Convertible Preferred Stock

As of December 31, 2019, the authorized capital stock of the Company includes 75,727,268 shares of redeemable convertible preferred stock, consisting of 28,000,000 shares of Series A Redeemable Convertible Preferred Stock ("Series A Preferred Stock") and 47,727,268 shares of Series A-1 Redeemable Convertible Preferred Stock ("Series A-1 Preferred Stock"), collectively known as Redeemable Convertible Preferred Stock.

Redeemable convertible preferred stock consists of the following:

	As of December 31, 2018			
	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference
	(in thousands, except share data)			
Series A	28,000,000	28,000,000	$27,832	$ 28,000
Series A-1	33,181,818	33,181,818	34,744	33,182
	61,181,818	61,181,818	$62,576	$ 61,182

	As of December 31, 2019			
	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference
	(in thousands, except share data)			
Series A	28,000,000	28,000,000	$27,832	$ 28,000
Series A-1	47,727,268	47,727,268	51,035	47,727
	75,727,268	75,727,268	$78,867	$ 75,727

In March 2016, the Company entered into a Series A Preferred Stock Purchase Agreement. Upon execution of the agreement, the Company issued 6,000,000 shares of Series A Preferred Stock for a purchase price of $1.00 per share. The agreement also provided for the issuance of additional shares of Series A Preferred Stock upon the occurrence of certain contingent events.

In April 2017, the Company modified the terms of the agreement and issued 2,400,000 shares of Series A Preferred Stock for a purchase price of $1.00 per share. The amendment decreased the number of shares that would be issued upon the occurrence of the contingent events by the same number of shares.

In November 2017, the contingent events were achieved, and the Company issued the remaining 19,600,000 shares of Series A Preferred Stock for a purchase price of $1.00 per share.

In December 2018, the Company issued 33,181,818 Series A-1 Preferred Shares pursuant to the acquisition of Arrys. The shares were recorded at fair value of $34.7 million (Note 3).

In January 2019, the Company issued 14,545,450 Series A-1 Preferred shares to BMS as part of a stock purchase agreement.

The obligation to issue the additional shares of Series A Preferred Stock was assessed and not considered to be a freestanding instrument. As a result, the feature was embedded within the shares, however, did not meet the characteristics to be bifurcated and accounted for separately apart from the underlying shares of Series A Preferred Stock. The Preferred Stock is eligible to be redeemed upon certain deemed-liquidation events which are outside of the Company's control. As a result, the shares are presented outside of stockholders' deficit. The shares will be accreted to redemption value if the events that would result in a deemed-liquidation event are considered probable. As of December 31, 2019, these events are not considered probable of occurring.

The Preferred Stock has the following characteristics as of December 31, 2019:

(a) Voting

On any matter presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Company's Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and have other special voting rights.

The holders of outstanding shares of Preferred Stock shall be entitled to elect three directors of the Company. The investors have agreed that two of the directors are to be named by one investor and the other director is to be named by a separate investor.

(b) Dividends

The holders of Preferred Stock are entitled to an 8% non-cumulative dividend. Dividends are payable only when, as and if declared by the Board. No dividends are payable to the common stockholders unless a dividend is also paid to Preferred Stockholders equal to at least the amount that would be received if the shares of Preferred Stock were converted into common stock.

Through December 31, 2019, no dividends have been declared or paid by the Company.

(c) Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, or upon the event of certain other deemed liquidation events, holders of shares of Preferred Stock then outstanding shall be entitled to receive the greater of (i) an amount per share equal to the Preferred Stock original issue price, plus any dividends declared but unpaid thereon or (ii) the amount that would be received if the Preferred Stock was converted into common stock just prior to the liquidation event.

(d) Conversion

Each share of Preferred Stock shall be convertible into shares of common stock at the option of the stockholder, at any time, at a rate of one for one and are automatically converted upon a qualified initial public offering or upon written consent of at least 75% of the holders of the outstanding shares of Preferred Stock. The conversion ratio is initially set at one for one, but may be adjusted for certain issuances of additional shares of Common Stock, stock splits, stock combinations, certain dividends and distributions, and mergers and reorganizations.

Note 10. Common Stock

At December 31, 2018 and 2019, the Company had 90,909,088 and 113,372,392, shares of common stock authorized, respectively, of which 18,818,179 and 18,967,681 were issued and outstanding as of December 31, 2018 and 2019, respectively.

Voting: The holders of shares of common stock are entitled to one vote for each share of common stock held at all meetings of stockholders and written action in lieu of meetings; there is no cumulative voting. The holders of outstanding shares of common stock shall be entitled to elect two directors of the Company.

Liquidation: After payment to the holders of shares of Preferred Stock of their liquidation preferences, the remaining assets of the Company are distributed to the holders of common stock.

Restricted stock: A total of 6,000,000 shares of the Company's common stock were issued in 2016 and were subject to repurchase agreements upon issuance. The repurchase right lapsed ratably over a period of 24 months.

The changes in the unvested restricted stock during the year ended December 31, 2018 was:

Unvested restricted stock at December 31, 2017	750,000
Vesting of restricted stock	(750,000)
Unvested restricted stock at December 31, 2018	—

There was no unvested restricted stock outstanding during the year ended December 31, 2019.

Note 11. Stock-Based Compensation

In December 2018, in conjunction with the acquisition of Arrys, the Company increased the number of shares available for issuance under the Company's 2016 Stock Incentive Plan (the "Plan") to up to 10,909,091, as approved by the Board of Directors. On March 30, 2019, the number of shares reserved under the Plan was increased by 7,372,392 shares to 18,281,483, as approved by the Board of Directors.

As of December 31, 2019, 616,065 shares were available for grant under the Plan. The Plan provides that equity awards may be granted to employees and nonemployees. The vesting periods for equity awards, which generally is four years, are determined by the Board of Directors. The contractual term for stock option awards is ten years.

Total stock-based compensation expense recorded during the years ended December 31, 2018 and 2019 was as follows (in thousands):

	December 31,	
	2018	2019
Research and development	$137	$ 469
General and administrative	176	700
Total share-based compensation expense	$313	$1,169

The weighted-average fair value of the stock options granted during the year ended December 31, 2018 and 2019 was $0.42 and $0.36 per share, respectively. As of December 31, 2019, the total unrecognized stock-based compensation balance for unvested options was $4.4 million which is expected to be recognized over 2.5 years. The Company recognized $0.7 thousand of stock-based compensation expense for the year ended December 31, 2018 related to the vesting of restricted common stock. There was no stock-based compensation expense related to the vesting of restricted common stock for the year ended December 31, 2019.

The following table summarizes stock option activity under the Plan for the year ended December 31, 2019:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2018	8,038,846	$ 0.31	9.15	$ 2,142
Granted	11,400,796	0.58		—
Exercised	(149,502)	0.17		—
Cancelled or forfeited	(1,773,753)	0.55		—
Outstanding as of December 31, 2019	17,516,387	$ 0.47	8.86	$ 2,842
Options exercisable as of December 31, 2019	4,215,362	$ 0.30	7.98	$ 1,390
Options unvested as of December 31, 2019	13,301,025	$ 0.52	9.15	$ 1,452

The intrinsic value of options exercised for the years ended December 31, 2018 and 2019 was zero and $70 thousand, respectively.

The fair value of each option award granted during the years ended December 31, 2018 and 2019 is estimated on the date of grant using the Black-Scholes option pricing model and the weighted average assumptions noted in the following table:

	Year Ended December 31,	
	2018	2019
Weighted average risk-free interest rate	2.7%	2.2%
Expected dividend yield	— %	— %
Expected option term (in years)	6.2	6.1
Expected stock price volatility	81.0%	67.4%

Note 12. Income Taxes

The effective income tax rate differed from the amount computed by applying the federal statutory rate to the Company's loss before income taxes as follows:

	Year Ended December 31,	
	2018	2019
Tax effected at statutory rate	21.0%	21.0%
State taxes	2.0%	7.7%
Stock compensation	(0.1%)	(1.3%)
Non-taxable incentives	0.1%	0.1%
Acquired in-process R&D	(14.6%)	— %
Federal research and development credits	0.4%	8.6%
Change in valuation allowance	(8.8%)	(36.1%)
Total	— %	— %

The Company's total deferred tax assets at December 31, 2018 and 2019 are as follows (in thousands):

	December 31, 2018	December 31, 2019
Deferred tax assets:		
Federal net operating loss carryforward	$ 6,469	$ 9,916
State net operating loss carryforward	1,915	2,966
R&D credit carryforwards	694	2,330
Capitalized start-up costs	312	287
Accruals and reserves	72	47
Stock options	24	53
Total deferred tax assets	9,486	15,599
Deferred tax liability:		
Fixed assets	(158)	(190)
Total deferred tax liability	(158)	(190)
Valuation Allowance	(9,328)	(15,409)
Net deferred tax assets and liability	$ —	$ —

The Company has had no income tax expense due to operating losses incurred since inception. ASC 740 requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of the evidence, it is more-likely-than-not that some portion or all of the deferred tax assets will not be realized. The Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets. Based on this, the Company has provided a valuation allowance for the full amount of the net deferred tax assets as the realization of the deferred tax assets is not determined to be more likely than not. During 2019, the valuation allowance increased by $5.7 million primarily due to the increase in the Company's net operating loss during the period.

As of December 31, 2019, the Company had approximately $47.2 million of Federal operating loss carryforwards, of which $8.9 million begin to expire in 2036 and $38.3 million are not subject to expiration. These loss carryforwards are available to reduce future federal taxable income, if any. As of December 31, 2019, the Company had approximately $46.9 million of state operating loss carryforward, of which $46.9 million will begin to expire in 2036. As of December 31, 2019, the Company also has federal and state research and development tax credit carryforwards of approximately $1.9 million and $538 thousand respectively, to offset future income taxes, which will begin to expire in December 2031. These loss carryforwards are subject to review and possible adjustment by the appropriate taxing authorities. The amount of loss carryforwards that may be utilized in any future period may be limited based upon changes in the ownership of the company's ultimate parent.

The Company follows the provisions of ASC 740-10, *Accounting for Uncertainty in Income Taxes*, which specifies how tax benefits for uncertain tax positions are to be recognized, measured, and recorded in financial statements; requires certain disclosures of uncertain tax matters; specifies how reserves for uncertain tax positions should be classified on the balance sheet; and provides transition and interim period guidance, among other provisions. The Company's policy is to recognize interest and penalties accrued on any uncertain tax positions as a component of income tax expense, if any, in its statements of income. As of December 31, 2019, and 2018, the Company had no reserves for uncertain tax positions. For the years ended December 31, 2019 and 2018, no estimated interest or penalties were recognized on uncertain tax positions.

The Company has not conducted a study of its research and development credit carryforwards. This study may result in an adjustment to research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation

allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheets or statements of operations if an adjustment were required.

The Company's federal and Massachusetts income tax returns for the years ended December 31, 2017 to December 31, 2019 remain open and are subject to examination by the Internal Revenue Service and state taxing authorities.

Note 13. Research License Agreements

During 2015, the Company entered into an exclusive patent license agreement (the "UT Austin License") to license certain technologies and intellectual property rights from the University of Texas at Austin (the "University"), an entity affiliated with a director of the Company at the time of the agreement. The UT Austin License shall remain in effect until the expiration or abandonment of the last to expire technologies and intellectual property rights. The Company shall pay License Maintenance fees annually of $40 thousand. Additionally, the Company shall make additional milestone payments to the University upon meeting certain development milestones in the aggregate of $4.7 million upon meeting certain development milestones during the term of the UT Austin License. The Company will pay the University royalties as defined in the UT Austin License on any commercialized product sales related to the licensed technology in a percentage in the low single digits. The Company will also be responsible for reimbursing the University for certain patent-related costs incurred on its behalf.

For the years ended December 31, 2018 and 2019, the Company incurred expenses totaling $20 thousand and $100 thousand, respectively, related to license maintenance fees and $80 thousand and $126 thousand related to patent reimbursement costs, respectively, related to the UT Austin License, which are included in research and development expense.

In 2018, the Company acquired IPR&D on an Arrys' immune-oncology candidate based on the intellectual property associated with Arrys' AskAt License as part of the acquisition of Arrys. Total consideration allocated to the technology was $28.5 million and was recognized as research and development expense upon the acquisition. The AskAt License is intended to be used by the Company in its future development of therapeutic drug candidates for eventual clinical development and commercialization. The Company shall make additional milestone payments to AskAt upon meeting certain development milestones totaling $4 million, as well as certain sales event milestones ranging from $50 million to $250 million contingent on sales in a calendar year, during the term of the AskAt License. The Company will pay the AskAt royalties a percentage in the low single digits as defined in the AskAt License on any commercialized product sales related to the licensed technology.

Note 14. Commitments and Contingencies

In August 2017, the Company entered into an operating lease agreement with Obsidian Therapeutics, Inc. to sublease approximately 4,156 square feet of office space located at 1030 Massachusetts Avenue, Cambridge, Massachusetts, as amended, which expired in November 2018. The monthly rent per the lease, exclusive of operating expenses, real estate taxes and parking, was $24 thousand.

In December 2018, the Company entered into an operating lease with Vertex Pharmaceuticals Inc. ("Vertex") to lease approximately 13,170 square feet of office, laboratory and vivarium space at 50 Northern Ave, Boston, Massachusetts, expiring in December 2020. In July 2020, the Company extended the term of the lease through February 2021. The monthly rent per the lease, exclusive of operating expenses and real estate taxes, is $93 thousand, with the first payment of rent paid in January 2019. Under the terms of the lease, Vertex contributed $160 thousand towards a tenant improvement allowance.

The Company recorded rent expense of $535 thousand and $996 thousand for the years ended December 31, 2018 and 2019, respectively. The Company recognizes rent expense on a straight-line basis over the lease period

and has recorded deferred rent for rent expense incurred but not yet paid and for tenant improvement allowance paid by the lessor, which resulted in a deferred balance of $243 thousand and $121 thousand at December 31, 2018 and 2019, respectively.

The following table summarizes the future minimum lease payments under the Company's operating leases as of December 31, 2019 (in thousands):

Year Ending December 31,	
2020	1,118
Total	$1,118

The Company is also party to various agreements, principally relating to licensed technology, that require future payments relating to milestones not met at December 31, 2019 or royalties on future sales of specified products that have not yet occurred as of December 31, 2019.

Note 15. Related Party Transactions

The Company entered into several agreements with investors and entities affiliated with an investor:

1) The Company has entered into a lease agreement with an investor and a separate lease agreement with an affiliate of the investor for office and laboratory space located in Massachusetts. The Company paid the related parties approximately $319 thousand in total rent during the year ended December 31, 2018. The Company had no rent payments to related parties in the year ended December 31, 2019.

2) The Company performs services on behalf of entities affiliated with the investor. The Company recognized $990 thousand during the year ended December 31, 2018. As of December 31, 2018, the Company was owed $6 thousand related to these activities. The Company did not perform services on behalf of entities affiliated with the investor in 2019.

3) The Company received consulting services from an investor for $100 thousand and $161 thousand during the years ended December 31, 2018 and 2019, respectively. The Company has accrued for $75 thousand of service costs as of December 31, 2018. There was no accrual for the year ended December 31, 2019.

4) As discussed in Note 13 above, the Company recognized $28.5 million as expense upon the acquisition of IPR&D associated with the Arrys' AskAt License. The Company also incurred expenses of $17 thousand during the year ended December 31, 2018 related to the AskAt consulting services agreement.

The Company entered into several agreements with a director and an entity affiliated with a director:

1) As discussed in Note 13 above, the Company has entered into a license agreement with the University, which was affiliated with a director of the Company at the time of the agreement.

2) The Company has engaged the University to perform certain research services. The Company incurred expenses totaling $100 thousand and $20 thousand, respectively, related to license maintenance fees and $126 thousand and $80 thousand, respectively, related to patent reimbursement costs in the years ended December 31, 2019 and 2018, respectively.

3) The Company received consulting services from a director for $101 thousand during the year ended December 31, 2019. The Company did not receive consulting services from a director during the year ended December 31, 2018.

Note 16. Net Loss per Share Attributable to Common Stockholders

Basic and diluted loss per share attributable to common stockholders is computed by dividing net loss attributable to common stockholders by the weighted-average common shares outstanding.

The Company's potentially dilutive securities, which include convertible preferred stock, restricted stock, and stock options, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The Company excluded the following from the computation of diluted net loss per share attributable to common stockholders because including them would have had an anti-dilutive effect:

	Year ended December 31,	
	2018	2019
Convertible Preferred Stock	61,181,818	75,727,268
Options to purchase Common Stock	8,038,846	17,516,387
Total	69,220,664	93,243,655

Note 17. Subsequent Events

The Company evaluated all events or transactions that occurred from December 31, 2019 through January 8, 2021, the date the consolidated financial statements were issued. The Company has concluded that no events or transactions have occurred that require disclosure in the accompanying consolidated financial statements, other than the following:

(a) *Lease*

On July 21, 2020, the Company entered into an operating lease agreement for 20,752 square feet of office, lab and animal care facility space located in Boston, Massachusetts for the Company's new corporate headquarters. The commencement date of the lease is estimated to be February 1, 2021 and the lease term is 63 months. The lease provides a three-month free rent period, which will commence on the lease commencement date. The base rent at commencement is $145 thousand a month and escalates by 3% annually. The Company provided a letter of credit to secure their obligations under the lease in the initial amount of $0.9 million.

(b) *Common Stock and Preferred Stock Authorized for Issuance*

On October 1, 2020, the Board Amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Common Stock authorized for issuance to 200,000,000 shares. In addition, the Board amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Preferred Stock authorized for issuance to 83,590,362 shares, of which 28,000,000 are designated Series A Preferred Stock, 47,727,268 are designated Series A-1 Preferred Stock and 7,863,094 are designated Series A-2 Preferred Stock.

(c) *Amplify Medicines, Inc. Acquisition*

On October 1, 2020 (the "Acquisition Date"), the Company acquired Amplify, a related party. Pursuant to the terms and conditions of the Agreement and Plan of Merger ("the Merger Agreement"), the Company issued a total of 7,863,094 shares of Series A-2 Redeemable Convertible Preferred Stock at a fair value of $1.31 for aggregate fair value of approximately $10.3 million, net of issuance costs and 3,048,764 shares of Common Stock with a fair value of $1.03 for a total fair value of $3.1 million related to the Common Stock issued to the shareholders of Amplify as part of the Merger Agreement.

Voting Rights

Each holder of outstanding shares of Series A-2 Redeemable Convertible Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Company's Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class.

Dividends

The holders of Series A-2 Redeemable Convertible Preferred Stock are entitled to an 8% non-cumulative dividend. Dividends are payable only when, as and if declared by the Board. No dividends are payable to the common stockholders unless a dividend is also paid to Preferred Stockholders equal to at least the amount that would be received if the shares of Preferred Stock were converted into common stock.

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, or upon the event of certain other deemed liquidation events, holders of Series A-2 Redeemable Convertible Preferred Stock then outstanding shall be entitled to receive the greater of (i) an amount per share equal to $0.8266466, plus any dividends declared but unpaid thereon or (ii) the amount that would be received if the Preferred Stock was converted into common stock just prior to the liquidation event.

Conversion

Each share of Preferred Stock shall be convertible into shares of common stock at the option of the stockholder, at any time, at a rate of one for one and are automatically converted upon a qualified initial public offering or upon written consent of at least 75% of the holders of the outstanding shares of Preferred Stock. The conversion ratio is initially set at one for one, but may be adjusted for certain issuances of additional shares of Common Stock, stock splits, stock combinations, certain dividends and distributions, and mergers and reorganizations.

The Preferred Stock is eligible to be redeemed upon certain deemed-liquidation events which are outside of the Company's control. As a result, the shares will be presented outside of stockholders' deficit. The shares will be accreted to redemption value if the events that would result in a deemed-liquidation event are considered probable.

The Company first assessed if the acquisition represented a transaction which was under common control or common ownership under both the variable interest entity guidance and the voting interest entity guidance. While Amplify is a related party to the Company, it is not under common control or common ownership with the Company. The Company next assessed if Amplify, represented an asset or a business under FASB ASC Topic 805, *Business Combinations ASC 805*, as amended by ASU 2017-01. Under ASC 805, the Company determined that Amplify did not constitute a business since substantially all of the fair value of the gross assets acquired is concentrated in a single asset, which is the intellectual property for the lead product candidate in development by Amplify. The intellectual property acquired from Amplify is at an early stage of development and will require a significant investment of time and capital for development. There is no assurance that the Company will be successful in completing the additional research and development activities. The intellectual property acquired is considered to have no alternative future use, and therefore the cost of the acquisition allocated to it will be expensed as incurred.

The transaction price was determined and allocated as follows (in thousands):

Transaction Price	
Fair value of equity instruments issued	$13,441
Transaction Price Allocation	
In-process research and development	$10,689
Cash acquired	3,688
Prepaid expenses and other assets	34
Liabilities assumed	(970)
Total transaction price	$13,441

The fair value of the consideration issued was based on a probability weighted model that utilized two different scenarios that utilized a market approach.

The Company will recognize the write-off of the acquired in-process research and development intellectual property of $10.7 million within Research and development expense upon the closing of the transaction.

(d) *Common Stock and Preferred Stock Authorized for Issuance*

On December 18, 2020, the Company amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Common Stock authorized for issuance to 230,000,000 shares. In addition, the Board amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Preferred Stock authorized for issuance to 169,396,576 shares, of which 28,000,000 are designated Series A Preferred Stock, 47,727,268 are designated Series A-1 Preferred Stock, 7,863,094 are designated Series A-2 Preferred Stock and 85,806,214 are designated Series B Preferred Stock.

(e) *Series B Redeemable Convertible Preferred Stock Issuance*

On December 21, 2020, the Company issued a total of 85,806,214 shares of Series B Redeemable Convertible Preferred Stock at a purchase price of $1.3985 per share for aggregate proceeds of approximately $116.4 million, net of issuance costs.

Voting Rights

Each holder of outstanding shares of Series B Redeemable Convertible Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series B Redeemable Convertible Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Company's Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class.

Dividends

The holders of Series B Redeemable Convertible Preferred Stock are entitled to an 8% non-cumulative dividend in seniority to the Series A, A-1 and A-2 Redeemable Convertible Preferred Stock. Dividends are payable only when, as and if declared by the Board. No dividends are payable to the common stockholders unless a dividend is also paid to Preferred Stockholders equal to at least the amount that would be received if the shares of Preferred Stock were converted into common stock.

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, or upon the event of certain other deemed liquidation events, holders of shares of Series B Redeemable Convertible Preferred Stock then outstanding shall be entitled to receive the greater of (i) an amount per share equal to $1.3985, plus any dividends declared but unpaid thereon or (ii) the amount that would be received if the Preferred Stock was converted into common stock just prior to the liquidation event.

Conversion

Each share of Preferred Stock shall be convertible into shares of common stock at the option of the stockholder, at any time, at a rate of one for one and are automatically converted upon a qualified initial public offering or upon written consent of at least 75% of the holders of the outstanding shares of Preferred Stock. The conversion ratio is initially set at one for one, but may be adjusted for certain issuances of additional shares of Common Stock, stock splits, stock combinations, certain dividends and distributions, and mergers and reorganizations.

The Preferred Stock is eligible to be redeemed upon certain deemed-liquidation events which are outside of the Company's control. As a result, the shares will be presented outside of stockholders'

deficit. The shares will be accreted to redemption value if the events that would result in a deemed-liquidation event are considered probable.

(f) *Option Plan Increase*

On December 18, 2020, the number of shares reserved under the Plan was increased by 18,014,373 shares to 37,264,008, as approved by the Board of Directors.

IKENA ONCOLOGY, INC.

Condensed Consolidated Balance Sheets
(in thousands, except share and per share amounts)
(Unaudited)

	December 31, 2019	September 30, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 82,083	$ 55,860
Prepaid expenses and other current assets	3,122	2,822
Total current assets	85,205	58,682
Property and equipment, net	769	788
Right-of-use asset	—	422
Other assets	—	872
Total assets	$ 85,974	$ 60,764
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 935	$ 1,051
Accrued expenses and other current liabilities	2,679	3,059
Operating lease liability	—	460
Deferred revenue	20,683	23,107
Total current liabilities	24,297	27,677
Deferred revenue, net of current portion	44,273	32,720
Total liabilities	$ 68,570	$ 60,397
Commitments and contingencies (Note 14)		
Redeemable convertible preferred stock (Series A and A-1), $0.001 par value, 75,727,268 shares authorized, issued and outstanding as of December 31, 2019 and September 30, 2020 (liquidation preference of $75,727,268 as of December 31, 2019 and September 30, 2020);	$ 78,867	$ 78,867
Stockholders' deficit:		
Common stock, $0.001 par value, 113,372,392 shares authorized, 18,967,681 issued and outstanding as of December 31, 2019; 113,795,082 shares authorized, 19,021,056 issued and outstanding as of September 30, 2020;	19	19
Additional paid-in capital	5,601	6,769
Accumulated deficit	(67,083)	(85,288)
Total stockholders' deficit	(61,463)	(78,500)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 85,974	$ 60,764

The accompanying notes are an integral part of these condensed consolidated financial statements.

IKENA ONCOLOGY, INC.

Condensed Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share amounts)
(Unaudited)

	Nine Months Ended September 30,	
	2019	2020
Research and development revenue under collaboration agreement	$ 10,949	$ 9,129
Operating expenses:		
Research and development	18,974	21,445
General and administrative	5,024	6,150
Total operating expenses	23,998	27,595
Loss from operations	(13,049)	(18,466)
Other income	1,340	261
Net loss and comprehensive loss	$ (11,709)	$ (18,205)
Net loss per share attributable to common stockholders basic and diluted	$ (0.62)	$ (0.96)
Weighted-average common stocks outstanding, basic and diluted	18,938,256	19,013,848

The accompanying notes are an integral part of these condensed consolidated financial statements.

IKENA ONCOLOGY, INC.

Condensed Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share amounts)
(Unaudited)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount			
Balance at December 31, 2018	61,181,818	$62,576	18,818,179	$ 19	4,407	$ (50,266)	$ (45,840)
Issuance of preferred stock in connection with private placement	14,545,450	16,291	—	—	—	—	—
Exercise of stock options	—	—	149,502	—	25	—	25
Stock-based compensation	—	—	—	—	809	—	809
Net loss and comprehensive loss	—	—	—	—	—	(11,709)	(11,709)
Balance at September 30, 2019	75,727,268	$78,867	18,967,681	$ 19	$ 5,241	$ (61,975)	$ (56,715)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount			
Balance at December 31, 2019	75,727,268	$78,867	18,967,681	$ 19	5,601	$ (67,083)	$ (61,463)
Exercise of stock options	—	—	53,375	—	21	—	21
Stock-based compensation	—	—	—	—	1,147	—	1,147
Net loss and comprehensive loss	—	—	—	—	—	(18,205)	(18,205)
Balance at September 30, 2020	75,727,268	$78,867	19,021,056	$ 19	$ 6,769	$ (85,288)	$ (78,500)

The accompanying notes are an integral part of these condensed consolidated financial statements.

IKENA ONCOLOGY, INC.

Condensed Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2019	2020
Cash flows from operating activities		
Net loss	$ (11,709)	$ (18,205)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities		
Depreciation	178	225
Stock-based compensation	809	1,147
Non-cash lease expense	(86)	713
Changes in operating assets and liabilities		
Prepaid expenses and other current assets	(950)	341
Accounts payable	(422)	89
Accrued expenses and other current liabilities	388	266
Lease liability	—	(703)
Deferred revenue	67,760	(9,129)
Net cash flows provided by (used in) operating activities	55,968	(25,256)
Cash flows from investing activities		
Purchases of property and equipment	(179)	(116)
Net cash flows used in investing activities	(179)	(116)
Cash flows from financing activities		
Proceeds from issuance of preferred stock in connection with private placement	16,291	—
Proceeds from exercise of stock options	25	21
Net cash flows provided by financing activities	16,316	21
Net increase (decrease) in cash and cash equivalents and restricted cash	72,105	(25,351)
Cash, cash equivalents and restricted cash, beginning of period	18,156	82,083
Cash, cash equivalents and restricted cash, end of period	$ 90,261	$ 56,732
Cash and cash equivalents	$ 90,261	$ 55,860
Restricted cash included in other assets	—	872
Cash, cash equivalents and restricted cash, end of period	$ 90,261	$ 56,732
Supplemental disclosure of non-cash activities		
Purchases of property and equipment in accrued expense	$ —	$ 128
Right-of-use assets recognized upon adoption of ASC 842	$ —	$ 956
Right-of-use asset obtained in exchange for operating lease liability	$ —	$ 178
Deferred transaction costs in accounts payable and accrued expenses	$ —	$ 133

The accompanying notes are an integral part of these condensed consolidated financial statements.

IKENA ONCOLOGY, INC.

Notes to Condensed Consolidated Financial Statements
(Unaudited)

Note 1. Description of Business

The Company is a targeted oncology company focused on developing novel cancer therapies targeting key signaling pathways that drive the formation and spread of cancer. The Company's programs focus on key cancer driver pathways that are well-validated in scientific literature but lack approved or effective therapies and therefore have the potential to address high unmet medical needs. By leveraging the Company's deep understanding of discovery chemistry, translational science, and patient-centric drug development, it has built a deep pipeline of wholly owned and partnered programs focused on genetically defined or biomarker-driven cancers, which enables it to target specific patient populations that the Company believes are most likely to respond to treatment with its product candidates. Since the Company commenced operations in 2016, it has discovered or developed five oncology programs that include four product candidates in either IND-enabling studies or clinical development.

The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry, including, but not limited to, development by competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations and ability to secure additional capital to fund operations. Product candidates currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Because of the numerous risks and uncertainties associated with product development, the Company is unable to predict the timing or amount of increased expenses or when or if the Company will be able to achieve or maintain profitability. Even if the Company is able to generate revenue from product sales, the Company may not become profitable. If the Company fails to become profitable or is unable to sustain profitability on a continuing basis, then the Company may be unable to continue its operations at planned levels and be forced to reduce or terminate its operations. The Company expects to incur substantial operating losses and negative cash flows from operations for the foreseeable future.

In accordance with Accounting Standards Codification ("ASC") 205-40, *Going Concern*, the Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the condensed consolidated financial statements are issued. As of September 30, 2020, the Company had an accumulated deficit of $85.3 million. The Company expects to continue to generate operating losses in the foreseeable future. The Company has funded these losses principally through the sale of common and convertible preferred stock and from cash proceeds received in connection with the Company's collaboration with Bristol-Myers Squibb ("BMS") entered into in January 2019 (the "BMS Collaboration Agreement"). The Company expects that its cash and cash equivalents of $55.9 million at September 30, 2020, together with the $3.7 million of cash received through the acquisition of Amplify Medicines, Inc. ("Amplify") on October 1, 2020 and the net proceeds of $116.4 million from the issuance of Series B redeemable convertible preferred stock on December 21, 2020, will be sufficient to fund its operating expenses and capital expenditure requirements for at least the next 12 months from issuance of the condensed consolidated financial statements.

In addition, the Company expects that it will seek additional funding through public or private financings, debt financing, collaboration agreements or government grants. The inability to obtain funding, as and when needed, could have a negative impact on the Company's financial condition and ability to pursue its business strategies, which may include amending, delaying, limiting, reducing, or terminating planned activities related to its product candidates.

Note 2. Summary of Significant Accounting Policies

Basis of presentation: The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Arrys Therapeutics, Inc. ("Arrys") and Ikena Oncology Securities Corporation. All intercompany balances and transactions have been eliminated in consolidation. These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB").

Unaudited Interim Condensed Consolidated Financial Statements: The accompanying condensed consolidated balance sheet as of September 30, 2020 and the condensed consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit) and cash flows for the nine months ended September 30, 2019 and 2020 are unaudited. The financial data and other information contained in the notes thereto as of and for the nine months ended September 30, 2019 and 2020 are also unaudited. The condensed consolidated balance sheet data as of December 31, 2019 was derived from the Company's audited consolidated financial statements included elsewhere in this prospectus.

Except as disclosed in *Recently Adopted Accounting Pronouncements*, the unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements as of and for the year ended December 31, 2019, and, in the opinion of management, reflect all adjustments necessary, all of which were normal and recurring, for the fair presentation of the Company's financial position as of September 30, 2020, and the results of operations and cash flows for the nine months ended September 30, 2019 and 2020. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements as of and for the year ended December 31, 2019, and the notes thereto, included elsewhere in this prospectus.

Use of Estimates: The preparation of the Company's financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Estimates and judgments are based on historical information and other market-specific or various relevant assumptions, including in certain circumstances, future projections, that management believes to be reasonable under the circumstances. Actual results could differ materially from estimates. Significant estimates and assumptions are used for, but not limited to the accruals for research and development expenses, research and development revenue under collaboration agreement, stock-based compensation expense and the determination of fair value of equity instruments and intangible assets acquired in an asset acquisition. The Company utilized various valuation methodologies in accordance with the framework of the 2013 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its equity awards. The Company evaluates its estimates and assumptions on an ongoing basis. All revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Segments: Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker ("CODM") in deciding how to allocate resources to an individual segment and in assessing performance. The Company's CODM is its Chief Executive Officer. The Company has determined it operates in a single operating segment and has one reportable segment. All long-lived assets of the Company reside in the United States.

Fair Value of Financial Instruments: The amounts reported for cash equivalents, accounts payable and accrued expenses approximate fair value because of their short maturities. The Company reports its investment securities at their estimated fair value based on a three-tier fair value hierarchy to prioritize the inputs used in our fair value measurements. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets

for identical assets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists. The Company has not historically held any Level 2 or Level 3 investments. The Company recognizes transfers between levels of the fair value hierarchy on the date of the event or change in circumstances that caused the transfer.

Cash and Cash Equivalents: The Company considers all short-term, highly liquid investments with original maturities of 90 days or less at acquisition date to be cash equivalents.

Restricted Cash: Restricted cash is composed of amounts held on deposit related to the Company's lease arrangements. Restricted cash is classified as other assets as of September 30, 2020 based on terms of the underlying arrangement. There was no restricted cash as of December 31, 2019.

Concentration of Credit Risk: Financial instruments which potentially expose the Company to concentrations of credit risk include cash equivalents, marketable securities and accounts receivable. All of the Company's cash deposits are maintained at large, creditworthy financial institutions.

Property and Equipment: Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful life of each asset. Lab equipment is depreciated over five years. Electronic equipment and software are depreciated over three years. Leasehold improvements are amortized over the shorter of their useful life or lease term. When an item is sold or retired, the costs and related accumulated depreciation are eliminated, and the resulting gain or loss, if any, is credited or charged to income in the statement of operations and comprehensive loss. Repairs and maintenance costs are expensed as incurred.

Long-lived Assets: Long-lived assets consist of property and equipment. The Company reviews the recoverability of its long-lived assets, including the related useful lives, whenever events or changes in circumstances indicate that the carrying amount of a long-lived asset might not be recoverable, based on undiscounted cash flows. If such assets are considered to be impaired, an impairment loss is recognized and is measured as the amount by which the carrying amount of the assets exceed their estimated fair value, which is measured based on the projected discounted future net cash flows arising from the assets. To date, the Company has not recorded any impairment losses on long lived assets.

Income Taxes: The Company utilizes the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities using the enacted statutory tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Recognition of deferred tax assets is limited to amounts for which, in the opinion of management, realization is considered more likely than not in future periods.

Revenue Recognition: The Company has generated revenue from a collaboration agreement as well as service agreements with related parties.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606),* ("Topic 606"), which amended the guidance for accounting for revenue from contracts with customers. Under Topic 606, an entity recognizes revenue when its customer obtains control of promised goods or services in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. The Company adopted Topic 606 in 2018.

To determine revenue recognition for arrangements that are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

At contract inception, once the contract is determined to be within the scope of Topic 606, the Company assesses the goods or services promised within each contract and determine those that are performance obligations, then assesses whether each promised good or service is distinct. When the Company offers options for additional goods or services, such as to receive a license for intellectual property or for additional goods or services, the Company evaluates whether such options contain material rights that should be treated as additional performance obligations. Once performance obligations are identified, the Company then recognizes as revenue the amount of the transaction price that the Company allocated to the respective performance obligation when (or as) each performance obligation is satisfied, either at a point in time or over time. If the performance obligation is satisfied over time, the Company recognizes revenue based on the use of an input method.

Amounts received prior to revenue recognition are recorded as deferred revenue. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as current portion of deferred revenue in the accompanying consolidated balance sheets. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

As of September 30, 2020, the Company had one collaborative agreement, the BMS Collaboration Agreement, which the Company entered into in January 2019. For a complete discussion of the accounting related to the BMS Collaboration Agreement, see Note 7, Collaboration Agreement with BMS.

Research and Development Expense: Research and development costs are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities, including salaries, stock-based compensation and benefits, facilities costs, depreciation, third-party license fees, acquisition of technology, and external costs of outside vendors engaged to conduct preclinical development and discovery activities and trials. Research and development expense also includes the write-off of acquired in-process research (“IPR&D”) and development assets with no alternative future use.

Asset Acquisitions: The Company measures and recognizes asset acquisitions that are not deemed to be business combinations based on the cost to acquire the assets, which includes transaction costs, and the consideration is allocated to the items acquired based on a relative fair value methodology. Goodwill is not recognized in asset acquisitions. In an asset acquisition, the cost allocated to IPR&D assets with no alternative future use is charged to research and development expense at the acquisition date.

Stock-Based Compensation: The Company’s stock-based compensation program grants awards that may include stock options, restricted stock awards, restricted stock units, and other stock-based awards. The fair values of stock option grants are estimated as of the date of grant using a Black-Scholes option valuation model. The fair values of restricted stock awards and restricted stock units are based on the fair value of the Company’s common stock on the date of grant. The estimated fair values of the awards are expensed over the requisite service period, which is generally the vesting period of the award. For service-based awards that are subject to graded vesting, companies have the option to recognize compensation expense either on a straight-line or accelerated basis. The Company has elected to recognize compensation expense for these awards on a straight-line basis. The Company accounts for forfeitures as they occur. The Company classifies stock-based compensation expense in our consolidated statements of operations and comprehensive loss in the same manner in which the award recipient’s salary and related costs are classified or in which the award recipient’s service payments are classified.

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company has utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation* (the “Practice Aid”), to estimate the fair value of its common stock. Each valuation methodology includes estimates and assumptions that require the Company’s judgment. These estimates and assumptions include a number of objective and subjective factors, including external market

conditions, the superior rights and preferences of securities senior to the Company's common stock at the time of, and the likelihood of, achieving a liquidity event, such as an initial public offering or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

The Company's expected stock price volatility assumption is based on volatilities of similar entities whose share or option prices are publicly available. The Company uses the simplified method to estimate the expected life assumption. The risk-free interest rate is based on the yield of U.S. Treasury securities consistent with the expected life of the option. No dividend yield was assumed as the Company does not intend to pay dividends on its common stock.

Comprehensive Loss: Comprehensive loss includes net loss as well as other changes in stockholders' equity (deficit) that result from transactions and economic events other than those with stockholders. For the nine months ended September 30, 2019 and 2020, there were no differences between net loss and comprehensive loss.

Deferred Issuance Costs: Deferred issuance costs consist of legal, accounting and other third-party fees that are directly associated with in-process equity financings and remain deferred issuance costs until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction to the proceeds generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the condensed consolidated statements of operations and comprehensive loss.

Leases: The Company adopted ASC Topic 842, *Leases* ("ASC 842") on January 1, 2020. At the inception of an arrangement, the Company determines whether the arrangement is or contains a lease based on the unique facts and circumstances present. Leases that are economically similar to the purchase of assets are generally classified as finance leases; otherwise the leases are classified as operating leases. The Company has elected not to recognize leases with an original term of one year or less on the balance sheet. Options to renew a lease are not included in the Company's assessment unless there is reasonable certainty that the Company will renew. Leases with a term greater than one year are recognized on the balance sheet as right-of-use assets, lease liabilities and, if applicable, long-term lease liabilities. Lease liabilities and their corresponding right-of-use assets are recorded based on the present value of lease payments over the expected remaining lease term. However, certain adjustments to the right-of-use asset may be required for items such as incentives received. The Company has elected as an accounting policy to combine lease and non-lease components, such as common area maintenance, for all classes of underlying assets. The interest rate implicit in lease contracts has not historically been readily determinable. As a result, the Company utilizes its incremental borrowing rates, which are the rates incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. To estimate its incremental borrowing rate, a credit rating applicable to the Company is estimated using synthetic credit rating analysis since the Company does not currently have a rating agency-based credit rating.

Prior to adoption of ASC 842, the Company recognized lease expense straight line based the average of the remaining term of payments with an adjustment to deferred rent asset or liability based on the timing in payments in relation to straight line rent expense.

Emerging Growth Company Status: The Company is an "emerging growth company," ("EGC") as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"), and the Company may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not EGCs. As an EGC, the Company can elect to take advantage of the extended transition period afforded by the JOBS Act for the implementation of new or revised accounting standards. The Company has elected to use the extended transition period for complying with new or revised accounting standards, and as a result of this election, the Company's consolidated financial statements may not be comparable to companies that comply with public company FASB standards' effective dates. The Company will remain an EGC until the last day of the

fiscal year in which the fifth anniversary of the date of the first sale of common equity securities of the Company under an effective Securities Act registration statement occurs, although if the market value of the Company's common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if the Company has annual gross revenue of $1.07 billion or more in any fiscal year, the Company would cease to be an EGC as of December 31 of the applicable year. The Company would cease to be an EGC if it issued more than $1 billion of non-convertible debt over a three-year period.

Recently Adopted Accounting Pronouncements:

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* ("ASU 2016-02"), as subsequently amended which requires an entity to recognize assets and liabilities arising from a lease for both financing (formerly referred to as capital) and operating leases. ASU 2016-02 also requires new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. The Company adopted this ASU as of January 1, 2020 using the required modified retrospective approach and utilizing the effective date as its date of initial application. As a result, prior periods are presented in accordance with the previous guidance in ASC 840, Leases ("ASC 840"). In addition, the standard allows for certain practical expedients in transition to ASC 842, including the package of practical expedients. The Company elected to utilize the package of practical expedients which allowed the Company to not reassess the following: (i) whether any expired or existing contracts contained leases; (ii) the lease classification for any expired or existing leases; and (iii) the treatment of initial direct costs for any existing leases. The adoption of this standard resulted in the recognition of right-of-use assets and operating lease liabilities of $1.0 million and $1.0 million respectively, on the Company's consolidated balance sheet at adoption as of January 1, 2020.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326) —Measurement of Credit Losses on Financial Instruments ("ASU 2016-13")*. The provisions of ASU 2016-13 modify the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology and require a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The Company early adopted ASU 2016-13 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"). The Company adopted ASU 2018-13 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In August 2018, the FASB issued ASU 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"). The new standard will align the requirements for capitalizing implementation costs for hosting arrangements (services) with costs for internal-use software (assets). As a result, certain implementation costs incurred in hosting arrangements will be deferred and amortized. The Company adopted ASU 2018-15 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In April 2019, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments* ("ASU 2019-04"). This update provides clarifications for three topics related to financial instruments accounting, some of which apply to the Company. The Company adopted ASU 2019-04 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740)—Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), as part of its initiative to reduce complexity in the accounting standards. The amendments in ASU 2019-12 eliminate certain exceptions related to the approach for intraperiod tax allocation,

the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 also clarifies and simplifies other aspects of the accounting for income taxes. The Company early adopted ASU 2019-12 as of January 1, 2020 and it did not have a significant impact on its financial position or results of operation.

Recently Issued Accounting Pronouncements:

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by us as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on our consolidated financial statements and disclosures.

Note 3. Fair Value Measurements

The following table presents information about the Company's financial assets measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values (in thousands):

	Fair Value Measurements as of December 31, 2019 using:			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$81,832	$ —	$ —	$81,832
Total cash equivalents	$81,832	$ —	$ —	$81,832

	Fair Value Measurements as of September 30, 2020 using:			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$55,613	$ —	$ —	$55,613
Total cash equivalents	$55,613	$ —	$ —	$55,613

During the year ended December 31, 2019 and nine months ended September 30, 2020, there were no transfers between Level 1, Level 2 and Level 3.

Note 4. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following at December 31, 2019 and September 30, 2020 (in thousands):

	December 31, 2019	September 30, 2020
Clinical, manufacturing and scientific development	$ 1,856	$ 2,330
Other	1,266	492
	$ 3,122	$ 2,822

Note 5. Property and Equipment, net

Property and equipment consisted of the following at December 31, 2019 and September 30, 2020 (in thousands):

	December 31, 2019	September 30, 2020
Property and equipment:		
Lab equipment	$ 951	$ 1,067
Leasehold improvements	160	288
Electronic equipment and software	46	46
Total property and equipment	1,157	1,401
Less: accumulated depreciation	(388)	(613)
Property and equipment, net	$ 769	$ 788

Depreciation expense for the nine months ended September 30, 2019 and 2020 was $0.2 million and $0.2 million, respectively. There were no impairments for nine months ended September 30, 2019 and 2020.

Note 6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following at December 31, 2019 and September 30, 2020 (in thousands):

	December 31, 2019	September 30, 2020
Employee compensation	$ 1,040	$ 1,280
Research and development expenses	1,174	1,322
Professional fees	344	457
Current portion of deferred rent	121	—
	$ 2,679	$ 3,059

Note 7. Collaboration Agreement and Stock Purchase Agreement with BMS

In January 2019, the Company entered into the BMS Collaboration Agreement with Celgene Corporation, which was acquired by BMS in November 2019, whereby the Company will carry out initial research and development activities with the goal of identifying and developing drug candidates for certain cancer types. Concurrent with execution of the BMS Collaboration Agreement, the Company entered into a stock purchase agreement with BMS, which resulted in the issuance of 14,545,450 shares of Series A-1 Preferred Stock (the “Stock Purchase Agreement”).

Agreement Structure

Under the BMS Collaboration Agreement, the Company will conduct exploratory and discovery activities, with the goal of identifying product candidates for certain targets, which are the kynurenine, which the Company is developing as IK-412, and the aryl hydrocarbon receptor (“AHR”), which the Company is developing as IK-175. The Company is obligated to complete research and development activities through completion of a Phase 1b clinical trial for each program. BMS has the option to receive a global-development, manufacture and commercialization license for the product candidate. Subsequent to the delivery of a license, BMS is responsible for the worldwide development, manufacturing and commercialization of these product candidates.

BMS paid the Company a total of $95.0 million in aggregate upfront consideration related to the BMS Collaboration Agreement and Stock Purchase Agreement. The Company is eligible to receive $50.0 million, in

case of an exercise of its option with respect to IK-175, and $40.0 million, in case of an exercise of its option with respect to IK-412. If the Company does not complete a Phase 1b clinical trial by the end of the research term, the Company may provide a data package to BMS to support the decision to exercise the option for an additional $0.25 million. Upon the exercise of the delivery of each license, the Company becomes eligible to receive up to $450 million in milestone payments as well as a tiered royalty on worldwide sales from the high single to low teen digits.

Accounting Considerations of the Agreement

The BMS Collaboration Agreement and the Stock Purchase Agreement were executed concurrently and in contemplation of each other. The issuance of Series A-1 Preferred Stock was initially accounted for at fair value. The purchase price for the Series A-1 Preferred Stock was considered to be at a discount from fair value, and therefore $1.8 million of the upfront from the BMS Collaboration Agreement was allocated to the equity arrangement.

The Company determined that the BMS Collaboration Agreement represented a contract with a customer and should be accounted for in accordance with ASC 606. The Company identified the two performance obligations, which are research and development services for IK-412 and for IK-175. The options to receive worldwide development and commercialization licenses for the two targets and the option to receive manufacturing services in the future were determined to not provide any material rights to the customer and are therefore not considered to be performance obligations. The arrangement also contains certain di minimis items, including participation on joint oversight committees.

The Company identified $78.7 million of total transaction price which represents the upfront consideration allocated to the revenue arrangement. Additional consideration to be paid to the Company upon exercise of a right to receive a license or potential milestone and royalty payments are excluded from the transaction price as they relate to amounts that can only be achieved subsequent to the exercise of an options and are outside of the initial contact term.

Based on the distinct performance obligations identified above, the Company allocated the $78.7 million transaction price based on relative estimated standalone selling prices of each of its performance obligations as follows:

- $41.2 million for research and development services for IK-175; and
- $37.5 million for research and development services for IK-412.

The Company determined the estimated standalone selling price for the research and development services based on internal estimates of the costs to perform the services, including expected internal expenses and expenses with third parties, marked up to include a reasonable profit margin. Significant inputs used to determine the total expense of the research and development activities include, the length of time required and the number and cost of various studies that will be performed to complete the applicable development plan.

The Company is recognizing revenue related to each of its performance obligations as the research and development services are performed. The Company recognizes revenue related to research and development services performed using an input method by calculating costs incurred at each period end relative to total costs expected to be incurred.

During the nine months ended September 30, 2019 and 2020, the Company recognized revenue of $10.9 million and $9.1 million from the BMS Collaboration Agreement, respectively. The consolidated balance sheet at September 30, 2020 included deferred revenue of $55.8 million related this agreement, of which $23.1 million and $32.7 million was classified as current and non-current, respectively. This amount is expected to be recognized as performance obligations are satisfied through the completion of the research and development services for IK-175 and IK-412.

Note 8. Redeemable Convertible Preferred Stock

As of December 31, 2019 and September 30, 2020, the authorized capital stock of the Company includes 75,727,268 shares of redeemable convertible preferred stock, consisting of 28,000,000 shares of Series A Redeemable Convertible Preferred Stock ("Series A Preferred Stock") and 47,727,268 shares of Series A-1 Redeemable Convertible Preferred Stock ("Series A-1 Preferred Stock"), collectively known as Redeemable Convertible Preferred Stock.

Redeemable convertible preferred stock consists of the following:

	As of December 31, 2019			
	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference
	(in thousands, except share data)			
Series A	28,000,000	28,000,000	$ 27,832	$ 28,000
Series A-1	47,727,268	47,727,268	51,035	47,727
	75,727,268	75,727,268	$ 78,867	$ 75,727

	As of September 30, 2020			
	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference
	(in thousands, except share data)			
Series A	28,000,000	28,000,000	$ 27,832	$ 28,000
Series A-1	47,727,268	47,727,268	51,035	47,727
	75,727,268	75,727,268	$ 78,867	$ 75,727

The Preferred Stock has the following characteristics as of September 30, 2020:

(a) Voting

On any matter presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Company's Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class.

The holders of outstanding shares of Preferred Stock shall be entitled to elect three directors of the Company. The investors have agreed that two of the directors are to be named by one investor and the other director is to be named by a separate investor and have certain other special voting rights.

(b) Dividends

The holders of Preferred Stock are entitled to an 8% non-cumulative dividend. Dividends are payable only when, as and if declared by the Board. No dividends are payable to the common stockholders unless a dividend is also paid to Preferred Stockholders equal to at least the amount that would be received if the shares of Preferred Stock were converted into common stock.

Through September 30, 2020, no dividends have been declared or paid by the Company.

(c) Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, or upon the event of certain other deemed liquidation events, holders of shares of Preferred Stock then outstanding shall be entitled to receive the greater of (i) an amount per share equal to the Preferred Stock original issue price, plus any dividends declared but unpaid thereon or (ii) the amount that would be received if the Preferred Stock was converted into common stock just prior to the liquidation event.

(d) Conversion

Each share of Preferred Stock shall be convertible into shares of common stock at the option of the stockholder, at any time, at a rate of one for one and are automatically converted upon a qualified initial public offering or upon written consent of at least 75% of the holders of the outstanding shares of Preferred Stock. The conversion ratio is initially set at one for one, but may be adjusted for certain issuances of additional shares of Common Stock, stock splits, stock combinations, certain dividends and distributions, and mergers and reorganizations.

The Preferred Stock is eligible to be redeemed upon certain deemed-liquidation events which are outside of the Company's control. As a result, the shares are presented outside of stockholders' deficit. The shares will be accreted to redemption value if the events that would result in a deemed-liquidation event are considered probable.

Note 9. Common Stock

At December 31, 2019 and September 30, 2020, the Company had 113,372,392 and 113,795,082 shares of common stock authorized, respectively, of which 18,967,681 and 19,021,056 were issued and outstanding as of December 31, 2019 and September 30, 2020, respectively.

Voting: The holders of shares of common stock are entitled to one vote for each share of common stock held at all meetings of stockholders and written action in lieu of meetings; there is no cumulative voting. The holders of outstanding shares of common stock shall be entitled to elect two directors of the Company.

Liquidation: After payment to the holders of shares of Preferred Stock of their liquidation preferences, the remaining assets of the Company are distributed to the holders of common stock.

Note 10. Stock-Based Compensation

As of December 31, 2019, the number of shares reserved for issuance under the Company's 2016 Stock Incentive Plan (the "Plan") was 18,281,483. On July 23, 2020, the number of shares reserved under the Plan was increased by 968,152 shares to 19,249,635, as approved by the Board of Directors.

As of September 30, 2020, no shares were available for grant under the Plan. The Plan provides that equity awards may be granted to employees and nonemployees. The vesting periods for equity awards, which generally is four years, are determined by the Board of Directors. The contractual term for stock option awards is ten years.

Total stock-based compensation expense recorded during the nine-month periods ended September 30, 2019 and 2020 was as follows (in thousands):

	2019	2020
Research and development	$320	$ 506
General and administrative	489	641
Total share-based compensation expense	$809	$1,147

The weighted-average fair value of the stock options granted during the nine months ended September 30, 2019 and 2020, was $0.36 and $0.49 per share, respectively. As of September 30, 2020, the total unrecognized stock-

based compensation balance for unvested options was $4.1 million which is expected to be recognized over 2.0 years.

The following table summarizes stock option activity under the Plan for the nine months ended September 30, 2020.

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2019	17,516,387	$ 0.47	8.86	$ 2,842
Granted	1,828,293	0.63		
Exercised	(53,375)	0.39		
Cancelled or forfeited	(244,547)	0.56		
Outstanding as of September 30, 2020	19,046,758	$ 0.48	8.26	$ 5,479
Options exercisable as of September 30, 2020	8,497,717	$ 0.41	7.76	$ 3,098
Options unvested as of September 30, 2020	10,549,041	$ 0.54	8.67	$ 2,381

The intrinsic value of options exercised for nine months ended September 30, 2019 and 2020 was $70 thousand and $13 thousand, respectively.

The fair value of each option award granted during the nine months ended September 30, 2020 is estimated on the date of grant using the Black-Scholes option pricing model and the weighted average assumptions noted in the following table:

	Nine Months Ended September 30, 2020
Weighted average risk-free interest rate	0.38%
Expected dividend yield	0.00%
Expected option term (in years)	6.03
Expected stock price volatility	73.41%

Note 11. Income Taxes

Income taxes for the nine months ended September 30, 2019 and 2020 have been calculated based on an estimated annual effective tax rate and certain discrete items. For the nine months ended September 30, 2019 and 2020, the Company recorded an income tax expense of $0 million. The Company will recognize interest and penalties related to uncertain tax positions in income tax expense.

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic. Among other things, the CARES Act permits corporate taxpayers to carryback net operating losses (“NOLs”) originating in 2018 through 2020 to each of the five preceding tax years. Further, the CARES Act retroactively and temporarily (for taxable years beginning before January 1, 2021) suspends application of the 80%-of-income limitation on the use of NOLs.

The Company has never been examined by the Internal Revenue Service or any other jurisdiction for any tax years and, as such, all years within the applicable statutes of limitations are potentially subject to audit.

Note 12. Research License Agreements

During 2015, the Company entered into an exclusive patent license agreement (the “UT Austin License”) to license certain technologies and intellectual property rights from The University of Texas at Austin (the “University”), an entity affiliated with a director of the Company at the time of the agreement. The UT Austin License shall remain in effect until the expiration or abandonment of the last to expire technologies and intellectual property rights. The Company shall pay License Maintenance fees annually of $40 thousand.

Additionally, the Company shall make additional milestone payments in the aggregate of $4.7 million to the University upon meeting certain development milestones during the term of the UT Austin License. The Company will pay the University royalties as defined in the UT Austin License on any commercialized product sales related to the licensed technology in a percentage in the low single digits. The Company will also be responsible for reimbursing the University for certain patent-related costs incurred on its behalf. The Company incurred expenses totaling $87 thousand and $55 thousand related to patent reimbursement costs in the nine months ended September 30, 2019 and 2020, respectively, and incurred $40 thousand in expense related to licenses obtained from the party in the nine months ended September 30, 2020.

In 2018, the Company acquired IPR&D on an Arrys' immune-oncology candidate based on the intellectual property associated with Arrys' AskAt License Agreement (the "AskAt License") as part of the acquisition of Arrys. Total consideration allocated to the technology was $28.5 million and was recognized as research and development expense upon the acquisition. The AskAt License is intended to be used by the Company in its future development of therapeutic drug candidates for eventual clinical development and commercialization. The Company shall make additional milestone payments to AskAt upon meeting certain development milestones totaling $4 million, as well as certain sales event milestones ranging from $50 million to $250 million contingent on sales in a calendar year, during the term of the License. The Company will pay the AskAt royalties a percentage in the low single digits as defined in the License on any commercialized product sales related to the licensed technology.

Note 13. Leases

In December 2018, the Company entered into an operating lease to lease approximately 13,170 square feet of office, laboratory and vivarium space at 50 Northern Ave, Boston, Massachusetts, expiring in December 31, 2020. In July 2020, the Company extended the term of the lease through February 2021. The monthly rent per the lease, exclusive of operating expenses and real estate taxes, is $93 thousand, with the first payment of rent paid in January 2019. Under the terms of the lease, the Company received $160 thousand towards a tenant improvement allowance.

The Company recorded rent expense of $0.8 million for the nine months ended September 30, 2019. The Company recognizes rent expense on a straight-line basis over the lease period and recorded deferred rent for rent expense incurred but not yet paid and for tenant improvement allowance paid by the lessor, which resulted in a deferred balance of $151 thousand at September 30, 2019.

On January 1, 2020, the Company adopted ASC 842. The components of the lease costs which are included in the condensed consolidated statements of operations and comprehensive loss for the nine months ended September 30, 2020 were as follows (in thousands):

	September 30, 2020
Operating lease costs	$ 755
Variable lease costs	466
Total lease costs	$ 1,221

Supplemental cash flow information relating to the Company's leases for the nine months ended September 30, 2020 was as follows (in thousands):

	September 30, 2020
Cash paid for amounts included in the measurement of lease liabilities (operating cash flows)	$ 745

The following table presents the weighted average remaining lease term and discount rate for its operating lease as September 30, 2020:

	September 30, 2020
Remaining lease term:	0.4 years
Discount Rate:	8.0%

The undiscounted future lease payments for the Company's operating lease as of September 30, 2020, were as follows (in thousands):

Fiscal Year	Operating Leases
2020 (excluding the nine months ended September 30, 2020)	$ 280
2021	186
Total minimum lease payments	$ 466
Less amounts representing interest or imputed interest	(6)
Present value of lease liabilities	$ 460

On July 21, 2020, the Company entered into an operating lease agreement for 20,752 square feet of office, lab and animal care facility space located in Boston, Massachusetts for the Company's new corporate headquarters. The commencement date of the lease is estimated to be February 1, 2021 and the lease term is 63 months. The lease provides a three-month free rent period, which will commence on the lease commencement date. The base rent at commencement is $145 thousand a month and escalates by 3% annually. The Company provided a letter of credit to secure their obligations under the lease in the initial amount of $0.9 million that is recognized in other assets on the accompanying condensed consolidated balance sheets. The Company will recognize the right of use asset, operating lease liability and related lease costs beginning upon the commencement of the lease in 2021.

Note 14. Commitments and Contingencies

The Company is also party to various agreements, principally relating to licensed technology, that require future payments relating to milestones not met at September 30, 2020 or royalties on future sales of specified products that have not yet occurred as of September 30, 2020.

Note 15. Related Party Transactions

The Company entered into several agreements with investors and entities affiliated with an investor:

1) The Company received consulting services from an investor for $135 thousand during the nine months ended September 30, 2019.

The Company entered into several agreements with a director and an entity affiliated with a director:

1) As discussed in Note 12 above, the Company has entered into a license agreement with the University, which was affiliated with a director of the Company at the time of the agreement

2) The Company has engaged the University to perform certain research services. The Company incurred expenses totaling $87 thousand and $55 thousand, respectively, related to patent reimbursement costs in the nine months ended September 30, 2019 and 2020, respectively and incurred $40 thousand in expense related to licenses obtained from the party in the nine months ended September 30, 2020.

3) The Company received consulting services from a director for $101 thousand during the nine months ended September 30, 2019. The Company did not receive consulting services from a director during the nine months ended September 30, 2020.

Note 16. Net Loss per Share Attributable to Common Stockholders

Basic and diluted loss per share is computed by dividing net loss attributable to common stockholders by the weighted-average common shares outstanding.

The Company's potentially dilutive securities, which include redeemable convertible preferred stock, restricted stock, and stock options, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The Company excluded the following from the computation of diluted net loss per share attributable to common stockholders at September 30, 2019 and 2020 because including them would have had an anti-dilutive effect:

	As of September 30,	
	2019	2020
Redeemable Convertible Preferred Stock	75,727,268	75,727,268
Options to purchase Common Stock	15,759,146	19,046,758
Total	91,486,414	94,774,026

Note 17. Subsequent Events

The Company evaluated all events or transactions that occurred from September 30, 2020 through January 8, 2021, the date the condensed consolidated financial statements were available to be issued.

(a) *Common Stock and Preferred Stock Authorized for Issuance*

On October 1, 2020, the Board Amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Common Stock authorized for issuance to 200,000,000 shares. In addition, the Board amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Preferred Stock authorized for issuance to 83,590,362 shares, of which 28,000,000 are designated Series A Preferred Stock, 47,727,268 are designated Series A-1 Preferred Stock and 7,863,094 are designated Series A-2 Preferred Stock.

(b) *Amplify Medicines, Inc. Acquisition*

On October 1, 2020 (the "Acquisition Date"), the Company acquired Amplify, a related party. Pursuant to the terms and conditions of the Agreement and Plan of Merger ("the Merger Agreement"), the Company issued a total of 7,863,094 shares of Series A-2 Redeemable Convertible Preferred Stock at a fair value of $1.31 for aggregate fair value of approximately $10.3 million, net of issuance costs and 3,048,764 shares of Common Stock with a fair value of $1.03 for a total fair value of $3.1 million related to the Common Stock issued to the shareholders of Amplify as part of the Merger Agreement.

Voting Rights

Each holder of outstanding shares of Series A-2 Redeemable Convertible Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Company's Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class.

Dividends

The holders of Series A-2 Redeemable Convertible Preferred Stock are entitled to an 8% non-cumulative dividend. Dividends are payable only when, as and if declared by the Board. No

dividends are payable to the common stockholders unless a dividend is also paid to Preferred Stockholders equal to at least the amount that would be received if the shares of Preferred Stock were converted into common stock.

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, or upon the event of certain other deemed liquidation events, holders of Series A-2 Redeemable Convertible Preferred Stock then outstanding shall be entitled to receive the greater of (i) an amount per share equal to $0.8266466, plus any dividends declared but unpaid thereon or (ii) the amount that would be received if the Preferred Stock was converted into common stock just prior to the liquidation event.

Conversion

Each share of Preferred Stock shall be convertible into shares of common stock at the option of the stockholder, at any time, at a rate of one for one and are automatically converted upon a qualified initial public offering or upon written consent of at least 75% of the holders of the outstanding shares of Preferred Stock. The conversion ratio is initially set at one for one, but may be adjusted for certain issuances of additional shares of Common Stock, stock splits, stock combinations, certain dividends and distributions, and mergers and reorganizations.

The Preferred Stock is eligible to be redeemed upon certain deemed-liquidation events which are outside of the Company's control. As a result, the shares will be presented outside of stockholders' deficit. The shares will be accreted to redemption value if the events that would result in a deemed-liquidation event are considered probable.

The Company first assessed if the acquisition represented a transaction which was under common control or common ownership under both the variable interest entity guidance and the voting interest entity guidance. While Amplify is a related party to the Company, it is not under common control or common ownership with the Company. The Company next assessed if Amplify, represented an asset or a business under FASB ASC Topic 805, *Business Combinations ASC 805*, as amended by ASU 2017-01. Under ASC 805, the Company determined that Amplify did not constitute a business since substantially all of the fair value of the gross assets acquired is concentrated in a single asset, which is the intellectual property for the lead product candidate in development by Amplify. The intellectual property acquired from Amplify is at an early stage of development and will require a significant investment of time and capital for development. There is no assurance that the Company will be successful in completing the additional research and development activities. The intellectual property acquired is considered to have no alternative future use, and therefore the cost of acquisition allocated to it will be expensed as incurred.

The transaction price was determined and allocated as follows (in thousands):

Transaction Price	
Fair value of equity instruments issued	$13,441
Transaction Price Allocation	
In-process research and development	$10,689
Cash acquired	3,688
Prepaid expenses and other assets	34
Liabilities assumed	(970)
Total transaction price	$13,441

The fair value of the consideration issued was based on a probability weighted model that utilized two different scenarios that utilized a market approach.

During the three-months ended December 31, 2020, the Company recognized the write-off of the acquired in-process research and development intellectual property of $10.7 million within Research and development expense.

(c) *Common Stock and Preferred Stock Authorized for Issuance*

On December 18, 2020, the Board amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Common Stock authorized for issuance to 230,000,000 shares. In addition, the Board amended the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of Preferred Stock authorized for issuance to 169,396,576 shares, of which 28,000,000 are designated Series A Preferred Stock, 47,727,268 are designated Series A-1 Preferred Stock, 7,863,094 are designated Series A-2 Preferred Stock and 85,806,214 are designated Series B Preferred Stock.

(d) *Series B Redeemable Convertible Preferred Stock Issuance*

On December 21, 2020, the Company issued a total of 85,806,214 shares of Series B Redeemable Convertible Preferred Stock at a purchase price of $1.3985 per share for aggregate proceeds of approximately $116.4 million, net of issuance costs.

Voting Rights

Each holder of outstanding shares of Series B Redeemable Convertible Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series B Redeemable Convertible Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Company's Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class.

Dividends

The holders of Series B Redeemable Convertible Preferred Stock are entitled to an 8% non-cumulative dividend in seniority to the Series A, A-1 and A-2 Redeemable Convertible Preferred Stock. Dividends are payable only when, as and if declared by the Board. No dividends are payable to the common stockholders unless a dividend is also paid to Preferred Stockholders equal to at least the amount that would be received if the shares of Preferred Stock were converted into common stock.

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, or upon the event of certain other deemed liquidation events, holders of shares of Series B Redeemable Convertible Preferred Stock then outstanding shall be entitled to receive the greater of (i) an amount per share equal to $1.3985, plus any dividends declared but unpaid thereon or (ii) the amount that would be received if the Preferred Stock was converted into common stock just prior to the liquidation event.

Conversion

Each share of Preferred Stock shall be convertible into shares of common stock at the option of the stockholder, at any time, at a rate of one for one and are automatically converted upon a qualified initial public offering or upon written consent of at least 75% of the holders of the outstanding shares of Preferred Stock. The conversion ratio is initially set at one for one, but may be adjusted for certain issuances of additional shares of Common Stock, stock splits, stock combinations, certain dividends and distributions, and mergers and reorganizations.

The Preferred Stock is eligible to be redeemed upon certain deemed-liquidation events which are outside of the Company's control. As a result, the shares will be presented outside of stockholders' deficit. The shares will be accreted to redemption value if the events that would result in a deemed-liquidation event are considered probable.

(e) *Option Plan Increase*

On December 18, 2020, the number of shares reserved under the Plan was increased by 18,014,373 shares to 37,264,008, as approved by the Board of Directors

Shares

Common Stock

PRELIMINARY PROSPECTUS

Jefferies **Cowen** **Credit Suisse** **William Blair**

, 2021

PART II

Information Not Required in Prospectus

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee.

	Amount to be Paid
SEC registration fee	$ *
FINRA filing fee	*
Nasdaq Global Market listing fee	*
Printing and mailing expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous	*
Total	$ *

* To be completed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our fifth amended and restated certificate of incorporation to be in effect upon the closing of this offering and amended and restated by-laws to be in effect upon the effectiveness of this registration statement of which this prospectus forms a part that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, the by-laws to be in effect upon the effectiveness of this registration statement provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and intend to enter into such agreements with our executive officers. These agreements provide that we will indemnify each of our directors, our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us or in furtherance of our rights. Additionally, certain of our directors or officers may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's or officer's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that our obligations to those same directors or officers are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended, or the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification of us and our directors and officers by the underwriters against certain liabilities under the Securities Act and the Securities Exchange Act of 1934.

Item 15. Recent Sales of Unregistered Securities.

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

(a) Issuances of Capital Stock

Set forth below is information regarding securities we have issued within the past three years that were not registered under the Securities Act.

In January 2019, we sold an aggregate of 14,545,450 shares of our Series A-1 convertible preferred stock to Celgene Corporation (now Bristol-Myers Squibb Company) at a purchase price of $1.00 per share for $14.5 million.

In October 2020, we issued 7,863,094 shares of our Series A-2 preferred stock and 3,048,764 in connection with the AMI Merger Agreement.

In December 2020, we sold an aggregate of 85,806,214 shares of Series B convertible preferred stock to 23 investors at a purchase price of $1.3985 for $120.0 million.

No underwriters were involved in the foregoing sales of securities. Unless otherwise stated, the sales of securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, as transactions by an issuer not involving a public offering. All of the purchasers in these transactions represented to us in connection with their purchase that they were acquiring the securities for investment and not distribution, that they could bear the risks of the investment and could hold the securities for an indefinite period of time. Such purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration or an available exemption from such registration. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

(b) Grants and Exercises of Stock Options

Through December 31, 2020, we have granted stock options to purchase an aggregate of 21,277,935 shares of our common stock, with an exercise price of $0.16 to $0.63 per share, to employees, directors and consultants pursuant to the 2016 Stock Inventive Plan, or the 2016 Plan. Since January 1, 2018, 288,376 shares of common stock have been issued upon the exercise of stock options pursuant to the 2016 Plan.

The issuances of the securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act or Rule 701 promulgated under the Securities Act as transactions pursuant to compensatory benefit plans. The shares of common stock issued upon the exercise of options are deemed to be restricted securities for purposes of the Securities Act.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
2.1†	Agreement and Plan of Merger by and among the Registrant, Arrys Merger Sub, Inc., Arrys Therapeutics, Inc. and OrbiMed Private Investments VI, LP, as stockholder representative, dated December 18, 2018.
2.2†	Agreement and Plan of Merger by and among the Registrant, AMI Merger Sub, Inc., Amplify Medicines, Inc. and Atlas Venture Fund XI, L.P. as stockholder representative, dated October 1, 2020.
3.1**	Fourth Amended and Restated Certificate of Incorporation of Registrant, as currently in effect.
3.2*	Form of Fifth Amended and Restated Certificate of Incorporation of Registrant, to be in effect immediately prior to the completion of this offering.
3.3**	Bylaws of Registrant, as currently in effect.
3.4*	Form of Amended and Restated Bylaws of Registrant, to be in effect upon the effectiveness of this registration statement.
4.1*	Specimen Common Stock Certificate.
4.2**†	Fourth Amended and Restated Investors' Rights Agreement.
5.1*	Opinion of Goodwin Procter LLP.
10.1#	2016 Stock Incentive Plan, and form of award agreements thereunder.
10.2#*	2021 Stock Option and Grant Plan, and form of award agreements thereunder.
10.3#*	2021 Employee Stock Purchase Plan.
10.4#*	Non-Employee Director Compensation Policy.
10.5#*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.
10.6#*	Form of Amended and Restated Employment Agreement.
10.7†	License Agreement by and between the Registrant and AskAt, Inc., dated December 14, 2017, as amended, as amended on December 18, 2018.
10.8†	Master Collaboration Agreement by and between the Registrant and Celgene Corporation (now Bristol-Myers Squibb), dated January 14, 2019.
10.9†	Patent License Agreement by and between the Registrant and The University of Texas at Austin, on behalf of the Board of Regents of the University of Texas System, dated March 29, 2015, as amended on May 18, 2016, December 15, 2016, October 24, 2017, April 25, 2018 and January 9, 2019.
21.1**	List of Subsidiaries of Registrant.
23.1*	Consent of Ernst & Young, independent registered public accounting firm.
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).

* To be filed by amendment.
** Previously filed.
† Portions of this exhibit (indicated by asterisks) will be omitted in accordance with the rules of the Securities and Exchange Commission.
# Indicates a management contract or any compensatory plan, contract or arrangement.

(b) Financial Statements Schedules:

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Act, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes that:

(a) For purposes of determining any liability under the Act, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Act, shall be deemed to be part of this registration statement as of the time it was declared effective.

(b) For the purpose of determining any liability under the Securities Act of 1933, as amended, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts, on the day of , 2021.

IKENA ONCOLOGY, INC.

By: _____
Name: Mark Manfredi, Ph.D.
Title: President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

Each individual whose signature appears below hereby constitutes and appoints Mark Manfredi, Ph.D. and Douglas R. Carlson as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement and power of attorney have been signed by the following persons in the capacities and on the date indicated.

Name	Title	Date
_____ Mark Manfredi, Ph.D.	President, Chief Executive Officer and Director *Principal Executive Officer*	, 2021
_____ Douglas R. Carlson	Chief Financial Officer *Principal Financial Officer and Principal Accounting Officer*	, 2021
_____ Ron Renaud	Director	, 2021
_____ David Bonita, M.D.	Director	, 2021
_____ Iain D. Dukes, D.Phil.	Director	, 2021
_____ Jean-François Formela, M.D.	Director	, 2021
_____ Otello Stampacchia, Ph.D.	Director	, 2021

Exhibit 2.1

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AGREEMENT AND PLAN OF MERGER

BY AND AMONG

KYN THERAPEUTICS INC.,

ARRYS MERGER SUB, INC.,

ARRYS THERAPEUTICS, INC.

AND

ORBIMED PRIVATE INVESTMENTS VI, LP

AS STOCKHOLDER REPRESENTATIVE

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AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (this "Agreement") is made and entered into as of December 18, 2018 by and among Kyn Therapeutics Inc., a Delaware corporation ("Parent"), Arrys Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent ("Merger Sub"), Arrys Therapeutics, Inc., a Delaware corporation (such corporation and any predecessor entity thereto, the "Company"), and OrbiMed Private Investments VI, LP, a Delaware Limited Partnership, acting solely in its capacity as the representative of the Company Stockholders and only for the purposes provided herein and for no other purpose (the "Stockholder Representative"). Certain capitalized terms used but not otherwise defined herein are defined in Article 9 hereof.

RECITALS

A. Parent, Merger Sub and the Company intend to effect a merger of Merger Sub with and into the Company (the "Merger") in accordance with this Agreement and Delaware Law (as defined in Section 1.1 below). Upon consummation of the Merger, Merger Sub will cease to exist, and the Company will become a wholly-owned subsidiary of Parent.

B. The parties intend, by approving resolutions authorizing this Agreement, to adopt this Agreement as a "plan of reorganization" within the meaning of Treasury Regulation Section 1.368-2(g), and to cause the Merger to qualify as a reorganization under the provisions of Section 368(a) of the Code and the Treasury Regulations promulgated thereunder.

C. The board of directors of Parent (i) has determined that the Merger and the transactions contemplated by this Agreement are fair to, and in the best interests of, Parent and the Parent Stockholders, (ii) has deemed advisable and approved this Agreement, the Merger, and other actions contemplated by this Agreement, and (iii) has determined to recommend that the Parent Stockholders vote to approve the this Merger and the transactions contemplated hereunder.

D. The board of directors of the Company (i) has determined that the Merger and the transactions contemplated by this Agreement are fair to, and in the best interests of, the Company and the Company Stockholders, (ii) has deemed advisable and approved this Agreement, the Merger, and other actions contemplated by this Agreement, and (iii) has determined to recommend that the Company Stockholders vote to approve the this Merger and the transactions contemplated hereunder.

E. The board of directors of Merger Sub (i) has determined that the Merger and the transactions contemplated by this Agreement are fair to, and in the best interests of, Merger Sub and its sole stockholder, (ii) has deemed advisable and approved this Agreement, the Merger, and other actions contemplated by this Agreement, and (iii) has determined to recommend that the sole stockholder of Merger Sub vote to adopt this Agreement and thereby approve the Merger and the transactions contemplated hereunder.

F. Pursuant to the Merger, among other things, (i) all of the issued and outstanding shares of Company Capital Stock shall be terminated and converted into the right to receive the consideration set forth herein, (ii) all Company Options shall be terminated and options to purchase Parent Common Stock substituted therefor and (iii) any other rights to acquire Company Capital Stock shall be automatically terminated for no consideration.

G. As an inducement to the willingness of Parent and the Merger Sub to enter into this Agreement (but not pursuant to any prior agreement with the Company, Merger Sub or Parent), holders of at least ninety-nine percent (99%) of the outstanding shares of Company Capital Stock have indicated that they expect to deliver, following the approval and adoption of this Agreement by the board of directors of the Company and within twenty-four (24) hour(s) following execution and delivery of this Agreement, (x) their irrevocable approval and adoption of this Agreement, the Merger and the other transactions contemplated hereby pursuant to a written consent in the form attached hereto as Exhibit A (the "Stockholder Consent") and (y) a specified undertaking, representations, warranties, releases and waivers, and a joinder, appointment, confidentiality agreement, release and waiver in the form attached hereto as Exhibit B (the "Stockholder Joinder Agreement"), each signed and dated as of the date hereof, pursuant to and in accordance with the applicable provisions of Delaware Law and the Company Charter Documents.

H. The Company, on the one hand, and Parent and the Merger Sub, on the other hand, desire to make certain representations, warranties, covenants and other agreements in connection with the Merger.

NOW, THEREFORE, in consideration of the mutual agreements, covenants and other promises set forth herein, the mutual benefits to be gained by the performance thereof, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and accepted, the parties hereby agree as follows:

ARTICLE 1

THE MERGER

1.1 The Merger. At the Effective Time and subject to and upon the terms and conditions of this Agreement, and applicable provisions of the General Corporation Law of the State of Delaware ("Delaware Law"), Merger Sub shall be merged with and into the Company, the separate corporate existence of Merger Sub shall cease, and the Company shall continue as the surviving corporation and as a wholly-owned subsidiary of Parent. The surviving corporation after the Merger is sometimes referred to herein as the "Surviving Corporation."

1.2 Effective Time. Unless this Agreement is earlier terminated pursuant to Section 7.1 hereof, the closing of the Merger (the "Closing") will take place as promptly as practicable after the execution and delivery of this Agreement by the parties hereto, but no later than two (2) Business Days following satisfaction or waiver of the conditions set forth in Article VI hereof (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the fulfillment or waiver of those conditions). The date upon which the Closing actually occurs shall be referred to herein as the "Closing Date". On the Closing Date, the parties hereto shall cause the Merger to be consummated by filing a Certificate of Merger, in substantially the form attached hereto as Exhibit C (the "Certificate of Merger"), with the Secretary of State of the State of Delaware, in accordance with the applicable provisions of Delaware Law (the time of filing of the Certificate of Merger with the Secretary of State of the State of Delaware (or such other time as agreed to in writing by Parent and the Company and specified in the Certificate of Merger) shall be referred to herein as the "Effective Time").

1.3 Effect of the Merger. At the Effective Time, the effect of the Merger shall be as provided in the applicable provisions of Delaware Law. Without limiting the generality of the foregoing, except as otherwise agreed pursuant to the terms of this Agreement, at the Effective Time, all the property, rights, privileges, powers and franchises of the Company and the Merger Sub shall vest in the Surviving Corporation, and all debts, liabilities and duties of the Company and the Merger Sub shall become the debts, liabilities and duties of the Surviving Corporation.

1.4 Certificate of Incorporation and Bylaws.

(a) Unless otherwise determined by Parent prior to the Effective Time, the certificate of incorporation of the Surviving Corporation at and as of the Effective Time shall be amended to conform to the certificate of incorporation of Merger Sub as in effect immediately prior to the Effective Time, until thereafter amended in accordance with Delaware Law and as provided in such certificate of incorporation; provided, however, that at the Effective Time, Article I of such certificate of incorporation of the Surviving Corporation shall be amended and restated in its entirety to read as follows: "The name of the corporation is Arrys Therapeutics, Inc."

(b) Unless otherwise determined by Parent, immediately following the Effective Time, the board of directors of the Surviving Corporation shall adopt the bylaws of Merger Sub, as in effect immediately prior to the Effective Time, to be its bylaws until amended in accordance with the provisions thereof and applicable Law. Notwithstanding the foregoing, the name of the Surviving Corporation shall still be Arrys Therapeutics, Inc.

1.5 Directors and Officers.

(a) Directors. Unless otherwise determined by Parent prior to the Effective Time, the directors of Merger Sub immediately prior to the Effective Time shall be the directors of the Surviving Corporation immediately after the Effective Time, each to hold the office of a director of the Surviving Corporation in accordance with the provisions of Delaware Law, the certificate of incorporation and bylaws of the Surviving Corporation until their successors are duly elected and qualified, or until their earlier resignation or removal.

(b) Officers. Unless otherwise determined by Parent prior to the Effective Time, the officers of Merger Sub immediately prior to the Effective Time shall be the officers of the Surviving Corporation immediately after the Effective Time, each to hold office in accordance with the provisions of the bylaws of the Surviving Corporation.

1.6 Effect of Merger on the Securities of the Company.

(a) Effect on Capital Stock of the Company. At and as of the Effective Time, by virtue of the Merger and without any action on the part of Merger Sub, the Company, the holders of shares of Company Capital Stock or any other Person, upon the terms and subject to the conditions set forth in this Section 1.6:

(i) Conversion of Company Series A Preferred Stock. Each outstanding share of Company Series A Preferred Stock (other than any Dissenting Shares) shall be cancelled and extinguished and be converted automatically into the right to receive (following the surrender of the certificate representing such share of Company Series A Preferred Stock in accordance with Section 1.8 or delivery of an affidavit of loss and indemnity as provided in Section 1.10) a number of shares of Parent Series A-1 Preferred Stock equal to 1.5801 (the "Exchange Ratio") (with the aggregate number of shares of Parent Series A-1 Preferred Stock rounded down to a whole number of shares on a holder-by-holder basis) as set forth on Schedule 1.6 hereto.

(ii) Conversion of Company Common Stock. Subject to Section 1.6(c), each outstanding share of Company Common Stock (other than any Dissenting Shares) shall be cancelled and extinguished and be converted automatically into the right to receive (following the surrender of the certificate representing such share of Company Common Stock in accordance with Section 1.8 or delivery of an affidavit of loss and indemnity as provided in Section 1.10) a number of shares of Parent Common Stock equal to the Exchange Ratio (with the aggregate number of shares of Company Common Stock rounded down to a whole number of shares on a holder-by-holder basis) as set forth on Schedule 1.6 hereto.

(b) Treatment of Company Options.

(i) At the Effective Time, by virtue of the Merger, without any action on the part of any party hereto or any holder thereof, each Company Option (whether or not then vested or exercisable) outstanding immediately prior to the Effective Time, shall be substituted and exchanged at the Effective Time for an option denominated in shares of Parent Common Stock, and the (i) the number of shares of Parent Common Stock subject to each such option shall be determined by multiplying the number of shares of Company Common Stock subject to such Company Option immediately prior to the Effective Time by the Exchange Ratio (with the aggregate number of shares subject to an option of Parent rounded down to the nearest whole number of shares on a grant-by-grant basis) as set forth on Schedule 1.6 hereto and (ii) the exercise or purchase price per share of Parent Common Stock shall equal the quotient of the exercise price of such Company Option divided by the Exchange Ratio, rounded up to the nearest whole cent. The assumption and adjustment of the Company Options in accordance with this Section 1.6(b)(i) shall be done in a manner compliant with the requirements of Sections 424 and 409A of the Code and (ii) shall preserve the compensation element of each Company Option as of the Effective Time.

(ii) Each substituted and exchanged Company Option shall be deemed vested immediately following the Effective Time as to the same percentage of the total number of shares subject thereto as it was vested immediately prior to the Effective Time, and no acceleration of vesting shall occur as a result of the Merger. Prior to the Closing, Parent shall take all corporate action necessary to reserve for issuance a sufficient number of shares of Parent Common Stock for delivery upon exercise of Company Options for which shares of Parent Common Stock are required to be reserved for issuance. Prior to the Closing, the Company shall take all actions necessary in order to effect the provisions of this Section 1.6(b), including, without limitation, seeking all necessary approvals, obtaining waivers of acceleration that may result from the Merger under any award of Company Options and providing any notice required

under the terms of the applicable stock option plans or agreements. As soon as reasonably practicable after the Effective Time, Parent shall deliver to such holder of Company Options a new stock option award agreement on Parent's standard form option agreement; it being acknowledged and agreed, however, that the vesting schedule shall be consistent with the existing option agreement to which such Company Options are subject.

(c) Certain Matters. No share of Company Capital Stock (other than Dissenting Shares) or Company Options shall be deemed to be outstanding or to have any rights other than those set forth in Section 1.6 hereof after the Effective Time. Parent shall be entitled to rely on the Spreadsheet in making distributions to Company Stockholders pursuant to Section 1.8(b) and in granting options to purchase Parent Common Stock to holders of Company Options.

(d) Withholding Taxes. The Company, Parent and the Surviving Corporation shall be entitled to deduct and withhold from any consideration payable or otherwise deliverable pursuant to this Agreement to any holder or former holder of Company Capital Stock or Company Options such amounts as may be required to be deducted or withheld therefrom under the Code, or any provision of state, local or foreign Tax Law. To the extent that amounts are so deducted or withheld, such amounts shall be treated for all purposes of this Agreement as having been paid to the Persons in respect of whom such deduction and withholding were made.

(e) Capital Stock of Merger Sub. Each share of common stock of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one (1) validly issued, fully paid and nonassessable share of common stock of the Surviving Corporation. Each stock certificate of Merger Sub evidencing ownership of any such shares of common stock of Merger Sub shall thereafter evidence ownership of such shares of common stock of the Surviving Corporation.

1.7 Dissenting Shares.

(a) Notwithstanding any other provisions of this Agreement to the contrary, any shares of Company Capital Stock held by a holder who has properly demanded and perfected appraisal rights for such holder's shares under Delaware Law and who, as of the Effective Time, has not effectively withdrawn or lost such holder's appraisal rights under Delaware Law ("Dissenting Shares") shall not be converted into or represent a right to receive the consideration for Company Capital Stock set forth in Section 1.6(a) hereof, but the holder thereof shall only be entitled to such rights as are provided by Delaware Law. Parent shall be entitled to retain any such consideration not paid on account of such Dissenting Shares pending resolution of the claims of the holders thereof, and the Non-Dissenting Stockholders shall not be entitled to any portion thereof.

(b) Notwithstanding the provisions of Section 1.7(a) hereof, if any holder of Dissenting Shares shall effectively withdraw or lose (through failure to perfect or otherwise) such holder's appraisal rights under Delaware Law, then, as of the later of the Effective Time and the occurrence of such event, such holder's shares shall automatically be converted into and represent only the right to receive the consideration for Company Capital Stock, as applicable, set forth in Section 1.6(a) hereof, without interest thereon, and subject to the provisions of Section 1.8, upon surrender of the certificate representing such shares.

(c) The Company shall give Parent (i) prompt notice of any written notice of intent to demand appraisal under Delaware Law or other applicable Law or demand for appraisal under Delaware Law or other applicable Law received by the Company, and (ii) the opportunity to direct all negotiations and proceedings with respect to such notices or demands. The Company shall not, except with the prior written consent of Parent, voluntarily make any payment with respect to any such notices or demands or offer to settle or settle any such notices or demands without Parent's prior written consent.

1.8 Mechanics of Exchange.

(a) Parent to Provide Shares. From and after the Effective Time, Parent shall have available certificates evidencing the Merger Shares issuable pursuant to Section 1.6(a).

(b) Exchange Procedures. Following the Closing, each Company Stockholder shall surrender the certificates representing shares of Company Capital Stock (the "Certificates") (or an affidavit of loss and indemnity as provided in Section 1.10) in exchange for certificates representing the Merger Shares issuable to such Company Stockholder pursuant to Section 1.6(a) and Section 1.6(c). Upon surrender of a Certificate for cancellation (or an affidavit of loss and indemnity as provided in Section 1.10) to Parent, the holder of such Certificate shall be entitled to receive in exchange therefor a certificate or certificates representing the number of Merger Shares to which such holder is then entitled in accordance with Section 1.6(a) and Section 1.6(c), and the Certificate so surrendered shall forthwith be canceled. Until so surrendered, each outstanding Certificate will be deemed from and after the Effective Time, for all corporate purposes, to evidence the ownership of the number of Merger Shares into which such shares of Company Capital Stock shall have been so converted, subject to the terms and conditions hereof.

(c) Transfers of Ownership. From and after the Effective Time, there shall be no transfers on the stock transfer books of the Company of Company Capital Stock that was outstanding prior to the Effective Time.

(d) No Liability. Notwithstanding anything to the contrary in this Section 1.8, neither the Surviving Corporation nor any party hereto shall be liable to a holder of shares of Company Capital Stock or any other Person for any amount properly paid to a public official pursuant to any applicable abandoned property, escheat or similar Law. Any merger consideration or other amounts remaining unclaimed by Company Stockholders three (3) years after the Effective Time (or such earlier date immediately prior to such time as such amounts would otherwise escheat to or become property of any Governmental Entity) shall, to the extent permitted by applicable Law, become the property of Parent free and clear of any Liens.

(e) Transfers of Ownership. If any certificate for Merger Shares is to be issued in a name other than that in which the Certificate surrendered in exchange therefor is registered, it will be a condition of the issuance thereof that the Certificate so surrendered will be properly endorsed and otherwise in proper form for transfer and that the person requesting such exchange will have paid to Parent or any agent designated by it any transfer or other taxes

required by reason of the issuance of a certificate for Merger Shares in any name other than that of the registered holder of the Certificate surrendered, or established to the satisfaction of Parent or any agent designated by it that such tax has been paid or is not payable. Any such issuance in a name other than that in which the Certificate surrendered in exchange therefor is registered shall only be made in compliance with applicable federal, state and foreign laws.

1.9 No Further Ownership Rights. The Merger Shares payable for shares of Company Capital Stock in accordance with the terms hereof shall be deemed to be in full satisfaction of all rights pertaining to such shares of Company Capital Stock. After the Effective Time, each Certificate presented to the Surviving Corporation for any reason shall be cancelled and exchanged as provided in this Article 1. No interest shall accrue or be paid on any consideration payable upon the surrender of a Certificate which immediately before the Effective Time represented outstanding (or immediately exercisable for) shares of Company Capital Stock.

1.10 Lost, Stolen or Destroyed Instruments. In the event any Certificates evidencing shares of Company Capital Stock shall have been lost, stolen or destroyed, Parent may, in its discretion and as a condition precedent to the payment of any consideration with respect to the shares of Company Capital Stock previously represented by such Certificates, require the owner of such lost, stolen or destroyed Certificates to provide an appropriate affidavit with respect to such Certificate.

1.11 Taking of Necessary Action; Further Action. If at any time after the Effective Time, any further action is necessary or desirable to carry out the purposes of this Agreement and to vest the Surviving Corporation with full right, title and possession to all assets, property, rights, privileges, powers and franchises of the Company, then the officers and directors of the Surviving Corporation are hereby authorized, empowered and directed in the name of and on behalf of the Company to execute and deliver any and all things and to take such action as is necessary or desirable to vest or to perfect or confirm title to such property or rights in the Surviving Corporation, and otherwise to carry out the purposes and provisions of this Agreement.

ARTICLE 2

REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

As of the date hereof and as of the Closing Date, the Company hereby represents and warrants to Parent and the Merger Sub, subject only to such exceptions as are specifically disclosed in the Schedule of Exceptions (each of which disclosures, in order to be effective, shall indicate the Section and, if applicable, the Subsection of this Article 2 to which it relates, unless and only to the extent the relevance to other representations and warranties is readily apparent from the actual text of the disclosures without independent knowledge on the part of the reader regarding the disclosures) delivered by the Company to Parent (the "Company Schedule of Exceptions") concurrently with the execution and delivery of this Agreement as to the matters specified in this Article 2:

2.1 Organization of the Company. The Company is a corporation duly organized, validly existing and in good standing under Delaware Law. The Company has the corporate power to own its properties and to carry on its business as currently conducted. The Company is duly qualified or licensed to do business and in good standing as a foreign corporation (if applicable) in each jurisdiction in which it conducts business, except in those jurisdictions where the failure to be so qualified would not have a Company Material Adverse Effect. The Company has made available to Parent (i) a true and correct copy of its certificate of incorporation and bylaws (collectively, the "Company Charter Documents"), and (ii) a true and correct copy of the minutes of meetings and other actions of the board of directors (or other similar body), including any committees of the board of directors (or other similar body), and the stockholders of the Company in the possession of the Company. Section 2.1 of the Company Schedule of Exceptions lists the directors and officers of the Company. The operations now being conducted by the Company are not now and have never been conducted by the Company under any other name. The Company is not in violation of any of the provisions of the Company Charter Documents.

2.2 Company Capital Structure.

(a) As of the date hereof, the authorized capital stock of the Company consists of 30,000,000 shares of Company Common Stock, par value $0.001 per share, 4,315,068 shares of which are issued and outstanding as of the date of this Agreement and owned of record by the holders and in the amounts set forth on Section 2.2(a)(1) of the Company Schedule of Exceptions, and 21,000,000 shares of Company Series A Preferred Stock, par value $0.001 per share, all of which are designated Series A Preferred Stock, all of which are issued and outstanding as of the date of this Agreement and owned of record by the holders and in the amounts set forth on Section 2.2(a)(2) of the Company Schedule of Exceptions. All shares of Company Series A Preferred Stock are convertible into shares of Company Common Stock on a 1:1 basis. All outstanding shares of Company Capital Stock are duly authorized, validly issued, fully paid and non-assessable and not subject to preemptive rights created by statute, the Company Charter Documents, or any Contract to which the Company is a party or by which it is bound, and have been issued, in all material respects, in compliance with applicable federal, state and foreign Laws. The Company has not repurchased any shares of Company Capital Stock except in compliance in all material respects with all applicable federal, state, foreign and local Laws, including federal, state and foreign securities Laws, and any Contracts applicable thereto. There are no declared or accrued but unpaid dividends with respect to any shares of Company Capital Stock. Other than as disclosed in the Schedules referred to in this Section 2.2(a), the Company has no capital stock authorized, issued or outstanding. Other than as disclosed in the Schedules referred to in this Section 2.2(a), no vesting provisions applicable to any shares of Company Options or to any other rights to purchase Company Capital Stock will accelerate as a result of the transactions contemplated by this Agreement.

(b) Except for the Company's 2017 Stock Incentive Plan (the "Plan"), the Company has never adopted or maintained any stock option plan or other plan providing for equity compensation of any Person. The Company has never granted any options to purchase Company Capital Stock or any other type of stock award other than pursuant to the Plan. The Company has reserved 2,054,794 shares of Company Common Stock for issuance to officers, directors, employees and consultants of the Company pursuant to the Plan. Of such reserved shares of Company Common Stock, (i) 1,811,892 shares of which are issuable, as of the date hereof, upon the exercise of outstanding, unexercised options granted under the Plan, (ii) no

shares of which have been issued, as of the date hereof, upon the exercise of options granted under the Plan, and (iii) no shares have been issued, as of the date hereof, pursuant to restricted stock agreements under the Plan. For each outstanding Company Option or other stock award granted under the Plan or otherwise, Section 2.2(b) of the Company Schedule of Exceptions sets forth, as of the date of this Agreement, the name of the holder of such Company Option or stock award, the domicile address of such holder, the grant date, the vesting commencement date (if different from the grant date), the number and type of shares of Company Capital Stock issuable upon the exercise of such Company Option or stock award, the exercise price of such Company Option or the value at which such stock award was granted, the type of Company Option or stock award (including, in the case of options, whether an option is intended to qualify as an incentive stock option as defined in Section 422 of the Code), the vesting schedule for such Company Option or stock award, including the extent vested to date and to be vested as of the Effective Time (reflecting the passage of time and any acceleration of vesting for such option or stock award that would result upon the consummation of the transactions contemplated by this Agreement and an explanation of any acceleration feature) and special acceleration of vesting, if any, as disclosed in Section 2.2(b) of the Company Schedule of Exceptions. All such Company Options and other stock awards have been issued in compliance in all material respects with all applicable federal, state and foreign Laws and all applicable Contracts. The form(s) of agreement pursuant to which such Company Options have been issued are attached to the Company Schedule of Exceptions as Section 2.2(b)(1). Section 2.2(b) of the Company Schedule of Exceptions also indicates which holders of Company Options have executed which form of agreement as to which of such securities.

(c) Except for the Company Options and other stock awards identified in Section 2.2(b) of the Company Schedule of Exceptions and the conversion rights of the Company Series A Preferred Stock, there are no options, warrants, calls, rights, resolutions, commitments or Contracts of any character, written or oral, to which the Company is a party or by which it is bound, obligating the Company to issue, deliver, sell, repurchase or redeem, or cause to be issued, delivered, sold, repurchased or redeemed, any shares of the capital stock of the Company or obligating the Company to grant, extend, accelerate the vesting of, change the price of, otherwise amend or enter into any such option, warrant, call, right, commitment or Contract. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to give rise to or provide a reasonable basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of Company Capital Stock or other securities of the Company. There are no outstanding or authorized stock appreciation, stock unit, phantom stock, profit participation or other similar rights with respect to the Company. As a result of the Merger, Parent will be the sole record and beneficial holder of all issued and outstanding shares of Company Capital Stock and all rights to acquire or receive any shares of Company Capital Stock. As of the Effective Time, no former holder of a Company Option will have any rights with respect to such Company Option other than as contemplated by Section 1.6(b) hereof. Except for that certain Voting Agreement listed on Schedule 6.2(f) of the Company Schedule of Exceptions, the Company is not a party to, and as of the date hereof, there are no other voting trusts, proxies, or other Contracts or understandings with respect to the voting stock of the Company.

2.3 No Subsidiaries. The Company does not have, and has never had, any Subsidiaries and does not otherwise own any shares of capital stock or any interest in, or control, directly or indirectly, any other corporation, partnership, association, joint venture or other business entity or have any ongoing obligation to purchase any shares of capital stock with respect thereto.

2.4 Authority.

(a) The Company has all requisite corporate power and authority to enter into this Agreement, subject to the adoption of this Agreement by the Company Stockholders under Delaware Law and the Company Charter Documents, and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of the Company, and, subject to the adoption of this Agreement by the Company Stockholders under Delaware Law and the Company Charter Documents prior to the Effective Time, no further action is required on the part of the Company to authorize this Agreement and the transactions contemplated hereby. This Agreement has been duly executed and delivered by the Company and, assuming the due authorization, execution and delivery by the other parties hereto, constitutes the valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as such enforceability may be subject to the Laws of general application relating to bankruptcy, insolvency and the relief of debtors and rules of Law governing specific performance, injunctive relief or other equitable remedies.

(b) The board of directors of the Company has unanimously (i) adopted the plan of merger set forth in this Agreement and approved this Agreement, the Merger and the other transactions contemplated by this Agreement; (ii) declared that this Agreement, the Merger and the other transactions contemplated by this Agreement are advisable and in the best interests of the Company and the Company Stockholders; and (iii) recommended adoption and approval of this Agreement, the Merger and the other transactions contemplated by this Agreement to the Company Stockholders.

2.5 No Conflict. The execution and delivery by the Company of this Agreement, and the consummation of the transactions contemplated hereby, will not conflict with or result in any violation of or default under (with or without notice or lapse of time, or both) or give rise to a right of termination, cancellation, modification or acceleration of any obligation, payment of any benefit, or loss of any benefit (any such event, a "Conflict") under: (a) any provision of the Company Charter Documents; (b) any written or oral mortgage, indenture, lease, contract, covenant or other agreement, arrangement, instrument or commitment, permit, concession, franchise or license (each a "Contract" and collectively the "Contracts") to which the Company or any of its properties or assets (whether tangible or intangible) is a party, bound by or, as the case may be, subject; or (c) any Law applicable to the Company or any of its properties (whether tangible or intangible) or assets, except, in case of clauses (b) and (c) where such Conflict would not reasonably be expected to have a Company Material Adverse Effect. As a result of the consummation of the transactions contemplated by this Agreement, the Surviving Corporation will not be prohibited from exercising any of its rights under any Contract (other than any Contract identified on Schedule 6.2(f) required to be terminated hereby), and none of Parent, the Surviving Corporation or any of their respective Subsidiaries will be required to pay any additional amounts or consideration other than ongoing fees, royalties or payments, which the Company would otherwise be required to pay pursuant to the terms of such Contracts had the transactions contemplated by this Agreement not occurred.

2.6 Governmental Consents. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with any court, administrative agency or commission or other federal, state, county, local or foreign governmental authority, instrumentality, agency or commission (each, a "Governmental Entity"), is required by or with respect to the Company in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby, except for (a) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings which, if not obtained or made, would not have a Company Material Adverse Effect, and (b) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware.

2.7 Company Financial Statements.

(a) Section 2.7(a) of the Company Schedule of Exceptions sets forth (i) the Company's unaudited consolidated balance sheet as of October 31, 2018, and the related unaudited consolidated statements of income, cash flows and stockholders' equity for the ten month period then ended (all of the foregoing financial statements of the Company and any notes thereto are hereinafter collectively referred to as the "Company Financial Statements"). The Company Financial Statements are correct in all material respects. The Company Financial Statements present fairly the Company's financial condition, operating results and cash flows as of the dates, and for the periods, indicated therein. The Company's unaudited balance sheet as of October 31, 2018, is referred to hereinafter as the "Current Company Balance Sheet."

(b) The Company has no Liability except liabilities that (a) have been reflected in the Current Company Balance Sheet (to the extent of such reflection) or disclosed in Section 2.7(b) of the Company Schedule of Exceptions, (b) have arisen in the ordinary course of business consistent with past practices since the date of the Current Company Balance Sheet and are not material to the Company, (c) are Third-Party Expenses or (d) are executory obligations arising in the ordinary course of business under Contracts to which the Company is a party (and not as a result of the breach of any such Contract or otherwise). Section 2.7(b) of the Company Schedule of Exceptions sets forth a complete and accurate list of all Indebtedness of the Company incurred by the Company as of the date of this Agreement.

2.8 No Changes. Since the date of the Current Company Balance Sheet, and except as expressly permitted by Section 4.1 hereof or required by this Agreement following the date of this Agreement, there has or have not been, occurred or arisen any Company Material Adverse Effect, and no event has occurred or circumstance has arisen that, in combination with any other events or circumstances, will or would reasonably be expected to have or result in a Company Material Adverse Effect.

2.9 Company Tax Matters.

(a) Tax Returns and Audits.

(i) The Company has prepared and timely filed all material federal, state, local and foreign returns, statements, estimates, information statements, documents, forms and reports in respect of Taxes ("Returns") required to be filed by it, and such Returns are true and correct in all material respects and have been completed in all material respects in accordance with applicable Law. The Company has paid all Taxes it is required to pay (whether or not shown on any Return).

(ii) The Company has complied in all material respects with all applicable Laws relating to the payment, reporting and withholding of Taxes (including, without limitation, withholding of Taxes pursuant to Sections 1441, 1442, 1445, 1446, 1471, 1472, 1473, and 1474 of the Code or similar provisions under any federal, state, local or foreign Law), has, within the time and in the manner prescribed by Law, withheld from employee wages or consulting compensation and timely paid over to the proper governmental authorities (or is properly holding for such timely payment) all amounts required to be so withheld and paid over under all applicable Laws, including federal and state income Taxes, state, local and foreign sales, use or other similar Taxes, Federal Insurance Contribution Act, Medicare, relevant state income and employment Tax withholding Laws, and has timely filed all withholding and sales or use Tax Returns, for all periods.

(iii) The Company has never been delinquent in the payment of any Tax, nor is there any Tax deficiency outstanding, assessed or proposed against the Company, nor has the Company executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any Tax.

(iv) The Company has disclosed on its federal income Tax Returns all positions that could give rise to a substantial understatement penalty under Section 6662 of the Code.

(v) No audit or other examination of any Return of the Company is presently in progress, nor has the Company been notified by any Tax authority (orally or in writing, formally or informally) of any threat or plan to request such an audit or other examination.

(vi) The Company has no liabilities for unpaid federal, state, local or foreign Taxes that have not been accrued or reserved on the Current Company Balance Sheet, whether asserted or unasserted, contingent or otherwise, and the Company has incurred no Liability for Taxes since the date of the Current Company Balance Sheet other than in the ordinary course of business.

(vii) The Company has made available to Parent copies of all Returns for the Company filed for all periods since its inception, together with all related workpapers and analysis created by or on behalf of the Company.

(viii) There are (and, immediately following the Effective Time, there will be) no liens, pledges, charges, claims, restrictions on transfer, mortgages, security interests or other encumbrances of any sort (collectively, "Liens") on the assets of the Company relating to or attributable to Taxes other than customary Liens for Taxes not yet due and payable.

(ix) The Company has never been, at any time, a "United States Real Property Holding Corporation" within the meaning of Section 897(c)(2) of the Code.

(x) There are no Tax rulings, requests for rulings, or "closing agreements" (as described in Section 7121 of the Code or any corresponding provision of state, local or foreign Tax Law) relating to the Company that could affect the Company's Liability for Taxes for any period after the Closing Date. The Company will not be required to include any item of income in, or exclude any item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing as a result of any: (i) adjustment pursuant to Section 481 of the Code (or any corresponding or similar provision of federal, state, local or foreign Tax Law); (ii) installment sale or open transaction disposition made on or prior to the Closing; (iii) prepaid amount received on or prior to the Closing; (iv) intercompany transaction or any excess loss account described in Treasury Regulations under Section 1502 of the Code; (v) election with respect to income from the discharge of indebtedness under Section 108(i) of the Code; or (vi) any similar election, action or agreement that would have the effect of deferring Liability for Taxes of the Company from any period ending on or before the Closing Date to any period ending after the Closing Date.

(xi) With respect to any stock or other property transferred in connection with the performance of services for the Company, a valid Section 83(b) election in accordance with the requirements of the Code has been made, copies of which have been made available to Parent.

(xii) The Company has never constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock qualifying for tax-free treatment under Section 355 of the Code.

(xiii) Except as set forth in Section 2.9(a)(xvi) of the Company Schedule of Exceptions, the Company is not party to any Contract, Company Employee Plan, Employee Agreement or other arrangement that is in any part a "nonqualified deferred compensation plan" subject to Section 409A of the Code and the regulations and other guidance promulgated thereunder. The Company is not a party to, or otherwise obligated under, any Contract, Company Employee Plan, Employee Agreement or other arrangement that provides for a gross up of any Tax imposed by Section 409A of the Code. Each such nonqualified deferred compensation plan has been operated in compliance in all material respects in both form and in operation with Section 409A of the Code. No Company Option or other right to acquire Company Common Stock or other equity of the Company (A) has an exercise price that has ever been less than the fair market value of the underlying equity as of the date such option or right was granted, (B) has any feature for the deferral of compensation other than the deferral of recognition of income until the later of exercise or disposition of such option or rights (within the meaning of Section 409A of the Code), (C) has been granted after December 31, 2004, with respect to any class of stock of the Company that is not "service recipient stock" (within the meaning of applicable regulations under Section 409A of the Code) or (D) has failed to be properly accounted for in the Company Financial Statements.

2.10 Property. The property and assets that the Company owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets. With respect to the property and assets it leases, the Company is in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances other than those of the lessors of such property or assets. The Company does not own any real property.

2.11 Company Intellectual Property. The Company owns or possesses sufficient legal rights to all Company Intellectual Property used by it as of the date of this Agreement and, as so used, without any known conflict with, or known infringement of, the rights of others. To the Company's knowledge, no product or service marketed or sold (or proposed to be marketed or sold) by the Company violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than as set forth on Section 2.11 of the Company Schedule of Exceptions and with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Company Intellectual Property, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. The Company has not received any communications alleging that the Company has violated, or by conducting its business, would violate any of the patents, trademarks, service marks, tradenames, copyrights, trade secrets, mask works or other proprietary rights or processes of any other Person. The Company has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with the Company's business. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by the Company. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted. Subsection 2.11 of the Company Schedule of Exceptions lists all patents and patent applications that are Company Intellectual Property as of the date of this Agreement. For purposes of this Subsection 2.11, the Company shall be deemed to have knowledge of a patent right if the Company has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent laws.

2.12 Contracts. The Company is not a party to, nor is it bound by:

(a) (i) any employment or consulting Contract with an employee or individual consultant or salesperson, or consulting or sales Contract with a firm or other organization to provide services to the Company, (ii) any Contract to grant any severance or termination pay (in cash or otherwise) to any employee, individual consultant or any contractor, or (iii) any consulting or sales Contract with a firm or other organization;

(b) any Contract or plan, including any stock option plan, stock appreciation rights plan, phantom stock plan or stock purchase plan, any of the benefits of which will be increased, or the vesting of benefits of which will be accelerated, by the occurrence of any of the transactions contemplated by this Agreement, or the value of any of the benefits of which will be calculated on the basis of any of the transactions contemplated by this Agreement;

(c) any Contract relating to the disposition or acquisition of assets or any interest in any business enterprise outside the ordinary course of the Company's businesses (including any Liability related to or arising out of any acquisition or other business combination such as any earn-out, performance, bonus or other contingent payment arrangement or arising out of any related indemnification provisions);

(d) any mortgage, indenture, guarantee, loan or credit agreement, security agreement or other Contract relating to the borrowing of money or extension of credit;

(e) any Contract containing a most-favored nations provision or any similar provision requiring that a third-party be offered terms or concessions at least as favorable as those offered to one or more other parties;

(f) any other agreement that was entered into outside the ordinary course of business or as inconsistent with the Company's past practices or which limits or impairs the ability of the Company to conduct its business or compete with any Person; or

(g) any Contract under which the Company's entering into this Agreement or the consummation of the Merger or the transactions contemplated thereby shall give rise to, or trigger the application of, any rights of any third-party or any obligations of the Company that would come into effect upon the consummation of the Merger.

The Company is in compliance in all material respects with and has not materially breached, violated or defaulted under, or received notice that it has materially breached, violated or defaulted under, any of the terms or conditions of any Contract to which it is a party or by which it is bound, nor to the Company's Knowledge has any event occurred or circumstance or condition come to exist that would reasonably be expected to constitute such a material breach, violation or default with the lapse of time, giving of notice or both. Each Contract of the type described in, or required to be disclosed under, Sections 2.11 or 2.12 hereof (each, a "Specified Contract") is in full force and effect, and the Company is not in material default thereunder, nor to the Knowledge of the Company is any other party to any such Contract in material default thereunder.

2.13 Company Interested Person Transactions.

(a) No officer or director of the Company or, to the Knowledge of the Company, holder of more than five percent (5%) of the outstanding shares of Company Capital Stock (nor any ancestor, sibling, descendant or spouse of any of such Persons, or any trust, partnership, corporation or other Person in which any of such Persons has or has had an interest), (a "Company Interested Person"), has or has had, directly or indirectly, (i) an economic interest in any entity which furnished or sold, or furnishes or sells, services, products or technology that the Company furnishes or sells, or proposes to furnish or sell, or (ii) any economic interest in any entity that purchases from or sells or furnishes to the Company, any services, products or technology, or (iii) a beneficial interest in any Contract to which the Company is a party, except in the case of clause (iii) in any such Person's capacity as an officer, director or stockholder of the Company; provided, however, that ownership of no more than five percent (5%) of the outstanding voting stock of a private corporation, or one percent (1%) of the outstanding voting stock of a publicly traded corporation, shall not be deemed to be an "interest in any entity" for purposes of this Section 2.13.

(b) All transactions pursuant to which any officer, director or stockholder of the Company or any Company Interested Person has purchased any services, products or technology from, or sold or furnished any services, products or technology to, the Company, have been on an arms' length basis on terms no less favorable to the Company than would be available from an unaffiliated party.

2.14 Governmental Authorization. Each material consent, license, permit, grant or other authorization (i) pursuant to which the Company currently operates or holds any interest in any of its properties, or (ii) which is required for the operation of the Company's business as currently conducted has been issued or granted to the Company and is in full force and effect and is not and will not be affected by the transactions contemplated hereby.

2.15 Litigation. There is no action, suit, claim or proceeding of any nature pending or, to the Knowledge of the Company, threatened or reasonably anticipated against or involving the Company, any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such. There is no investigation, inquiry or other proceeding pending or, to the Knowledge of the Company, threatened or reasonably anticipated against or involving the Company, any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such by or before any Governmental Entity. No Governmental Entity has provided the Company with written notice challenging or questioning the legal right of the Company to conduct its operations as conducted at that time or as presently conducted.

2.16 Minute Books. To the Company's Knowledge, the minutes of the proceedings of meetings and written actions of the board of directors (or similar body) and the stockholders of the Company made available to Parent are the only minutes of the Company as of the date of this Agreement and contain accurate summaries of all meetings and actions by written consent of the board of directors (or similar body) (or committees thereof) of the Company and of all meetings and actions by written consent of the stockholders of the Company, since the time of incorporation of the Company.

2.17 Fees and Expenses. The Company has not incurred, nor will it incur, directly or indirectly, any Liability for investment banking fees or for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby.

2.18 Employee Benefit Plans and Compensation.

(a) Schedule. Section 2.18(a)(1) of the Company Schedule of Exceptions contains an accurate and complete list of each Company Employee Plan and each Employee Agreement (whether or under a Company Employee Plan). The Company has not made any plan or commitment to establish, adopt or enter into any new Company Employee Plan or Employee Agreement, or to modify any Company Employee Plan or Employee Agreement (except to the extent required by Law). Section 2.18(a)(2) of the Company Schedule of Exceptions sets forth a table listing the name and salary of each exempt employee and/or consultant of the Company.

(b) Documents. The Company has made available to Parent, to the extent existing, (i) correct and complete copies of all documents embodying each Company Employee Plan and each Employee Agreement, including all amendments, summary plan descriptions, and trust documents, (ii) the three (3) most recent annual reports (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA for any Company Employee Plan, (iii) if any Company Employee Plan is funded, the most recent annual and periodic accounting of such Company Employee Plan's assets, (iv) all material written Contracts relating to each Company Employee Plan, including administrative service agreements, trust agreements and group insurance contracts, (v) all material communications relating to any established or proposed Company Employee Plan that relates to any material amendments, terminations, increases or decreases in benefits, acceleration of payments or vesting schedules or other events that would result in any Liability to the Company or its ERISA Affiliates, (vi) all material correspondence to or from any Governmental Entity relating to any Company Employee Plan, (vii) all policies pertaining to fiduciary liability insurance covering the fiduciaries for each Company Employee Plan, (viii) discrimination test results for each Company Employee Plan for the three (3) most recent plan years, (ix) the most recent IRS determination letter (or opinion letter in the case of a prototype plan) issued with respect to each Company Employee Plan, and (x) visa and work permit information with respect to current Company Personnel.

(c) Employee Plan Compliance. Each Company Employee Plan has been established and maintained in accordance with its terms and in material compliance with all applicable Laws. The Company has performed all material obligations required to be performed by it under each Company Employee Plan. Each Company Employee Plan intended to be qualified under Section 401(a) of the Code has obtained a favorable determination letter from the IRS or is entitled to rely on an opinion letter issued to the Company Employee Plan's prototype sponsor. There are no actions, suits or claims pending or, to the Knowledge of the Company, threatened or reasonably anticipated (other than routine claims for benefits) against any Company Employee Plan or against the assets of any Company Employee Plan. Each Company Employee Plan that is not an Employee Agreement can be amended, terminated or otherwise discontinued prior to the Effective Time in accordance with its terms, without Liability to Parent or the Company (other than ordinary administration expenses). There are no audits, inquiries or proceedings pending or to the Knowledge of the Company, threatened, or reasonably anticipated, by the IRS, United States Department of Labor or any other Governmental Entity with respect to any Company Employee Plan. The Company has made all contributions and other payments required by and due under the terms of each Company Employee Plan.

(d) No Pension Plans or Welfare Plans. Neither the Company nor any of its ERISA Affiliates has ever maintained, established, sponsored, participated in, or contributed to, and does not otherwise have any Liability with respect to or under any (i) employee benefit plan subject to Section 412 of the Code or Title IV of ERISA (ii) "multiemployer plan" within the meaning of Section (3)(37) of ERISA, (iii) "multiple employer plans" for purposes of ERISA, or (iv) a "funded welfare plan" within the meaning of Section 419 of the Code. No Company Employee Plan provides health or disability benefits that are not fully insured through an insurance contract.

2.19 Compliance with Laws. The Company has complied in all material respects with, is not in material violation of, and has not received any notices of violation with respect to, foreign, federal, state or local Laws. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to (with or without notice or lapse of time) constitute or result in a material violation by the Company of, or a failure on the part of the Company to comply in any material respect with, any applicable Law.

2.20 Data Privacy. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any personally identifiable information from any individuals, including, without limitation, any customers, prospective customers, employees and/or other third parties (collectively "Personal Information"), the Company is and has been in compliance with all applicable laws in all relevant jurisdictions, the Company's privacy policies and the requirements of any contract or codes of conduct to which the Company is a party. The Company has commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. The Company is and has been in compliance in all material respects with all laws relating to data loss, theft and breach of security notification obligations.

ARTICLE 3

REPRESENTATIONS AND WARRANTIES OF PARENT AND THE MERGER SUB.

As of the date hereof and as of the Closing Date, Parent and the Merger Sub hereby represent and warrant to the Company, subject only to such exceptions as are specifically disclosed in the Schedule of Exceptions (each of which disclosures, in order to be effective, shall indicate the Section and, if applicable, the Subsection of this Article 3 to which it relates, unless and only to the extent the relevance to other representations and warranties is readily apparent from the actual text of the disclosures without independent knowledge on the part of the reader regarding the disclosures) delivered by Parent and the Merger Sub to the Company (the "Parent Schedule of Exceptions") concurrently with the execution and delivery of this Agreement as to the matters specified in this Article 3:

3.1 Organization and Standing. Parent and the Merger Sub are each corporations duly organized, validly existing and in good standing under Delaware Law. Each of Parent and the Merger Sub has the corporate power to own its properties and to carry on its business as currently being conducted. Each of Parent and the Merger Sub is duly qualified or licensed to do business and in good standing as a foreign corporation in each jurisdiction in which it conducts business, except in those jurisdictions where the failure to be so qualified would not have a Parent Material Adverse Effect. Parent has delivered to the Company a true and correct copy of the Parent Restated Charter and bylaws. Immediately prior to the Effective Time, the Parent Restated Charter will have been duly filed with the Secretary of State of the State of Delaware and be in full force and effect. Parent is not in violation of any of the provisions of the Parent Charter Documents.

3.2 Authority.

(a) Each of Parent and the Merger Sub has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Parent and the Merger Sub, and no further action is required on the part of Parent or Merger Sub to authorize this Agreement and the transactions contemplated hereby. This Agreement has been duly executed and delivered by Parent and the Merger Sub and constitutes the valid and binding obligations of Parent and the Merger Sub, enforceable against Parent and the Merger Sub in accordance with its terms, except as such enforceability may be subject to the Laws of general application relating to bankruptcy, insolvency and the relief of debtors and rules of Law governing specific performance, injunctive relief or other equitable remedies.

(b) The boards of directors of Parent and the Merger Sub have each unanimously (i) adopted the plan of merger set forth in this Agreement and approved this Agreement, the Merger and the other transactions contemplated by this Agreement; (ii) declared that this Agreement, the Merger and the other transactions contemplated by this Agreement are advisable and in the best interests of Parent, the Parent Stockholders, Merger Sub and the Merger Sub's sole stockholder; and (iii) recommended adoption and approval of this Agreement, the Merger and the other transactions contemplated by this Agreement to the Parent Stockholders and the Merger Sub's sole stockholder.

3.3 No Conflict. The execution and delivery of this Agreement by Parent and the Merger Sub does not, and the consummation of the transactions contemplated hereby will not, conflict with, or result in any violation of, or default under (with or without notice or lapse of time, or both), or give rise to a Conflict under (a) any provision of the certificate of incorporation and bylaws of Parent or Merger Sub, (b) any Law applicable to Parent or Merger Sub or their respective properties or assets (whether tangible or intangible) or (c) any Contract to which Parent or Merger Sub is a party, except in the case of clauses (b) and (c) where such Conflict would not reasonably be expected to have a Parent Material Adverse Effect or will not have a material adverse effect on the legality, validity or enforceability of this Agreement.

3.4 Consents. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with, any Governmental Entity is required by or with respect to Parent or Merger Sub in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby, except for (a) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings which, if not obtained or made, would not have a Parent Material Adverse Effect, (b) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware, and (c) those required to be made with, given to or obtained from any Governmental Entity in connection with the Merger under applicable antitrust Laws.

3.5 Parent Financial Statements.

(a) Section 3.5(a) of the Parent Schedule of Exceptions sets forth Parent's unaudited consolidated balance sheet as of October 31, 2018, and the related unaudited consolidated statements of income, cash flows and stockholders' equity for the ten month period then ended (all of the foregoing financial statements of Parent and any notes thereto are hereinafter collectively referred to as the "Parent Financial Statements"). The Parent Financial Statements are correct in all material respects and have been prepared in accordance with GAAP

consistently applied on a basis consistent throughout the periods indicated and consistent with each other (except that the unaudited Parent Financial Statements do not contain footnotes thereto). The Parent Financial Statements present fairly Parent's financial condition, operating results and cash flows as of the dates, and for the periods, indicated therein. Parent's unaudited balance sheet as of October 31, 2018 is referred to hereinafter as the "Current Parent Balance Sheet."

(b) Neither Parent nor any of its subsidiaries has any Liability except liabilities that (a) have been reflected in the Current Parent Balance Sheet (to the extent of such reflection) or disclosed in Section 3.5(b) of the Parent Schedule of Exceptions, (b) have arisen in the ordinary course of business consistent with past practices since the date of the Current Parent Balance Sheet; (c) are Third-Party Expenses, or (d) are executory obligations arising in the ordinary course of business under Contracts to which Parent is a party (and not as a result of the breach of any such Contract or otherwise). Section 3.5(b) of the Parent Schedule of Exceptions sets forth a complete and accurate list of all Indebtedness of Parent as of the date of this Agreement.

3.6 Series A-1 Preferred Stock and Parent Common Stock. The rights, preferences, privileges and restrictions of the Parent Series A-1 Preferred Stock and Parent Common Stock are as stated in the Parent Restated Charter. When issued in compliance with the provisions of this Agreement and Parent Restated Charter, the Parent Series A-1 Preferred Stock and Parent Common Stock will be validly issued, fully paid and nonassessable, and will be free of any liens or encumbrances other than (i) liens and encumbrances created by or imposed upon the stockholders receiving such shares and (ii) any obligations set forth in the Parent Restricted Stock Agreement, the Parent Investors' Rights Agreement, the Parent Voting Agreement and Parent Right of First Refusal Agreement; provided, however, that the Parent Series A-1 Preferred Stock and Parent Common Stock may be subject to restrictions on transfer under state and/or federal securities laws as set forth herein or as otherwise required by such laws at the time a transfer is proposed. To the extent applicable, Parent has obtained valid waivers of any rights by other parties to purchase any of the Merger Shares covered by this Agreement.

3.7 Capitalization.

(a) As of the date of this Agreement and immediately after filing the Parent Restated Charter but prior to the Effective Time, the authorized capital stock of Parent consists of 90,909,088 shares of Common Stock, par value $0.001 per share, and 61,181,818 shares of preferred stock, par value $0.001 per share, 28,000,000 of which are designated Series A Preferred Stock ("Parent Series A Preferred Stock") and 33,181,818 of which are designated Series A-1 Preferred Stock ("Parent Series A-1 Preferred Stock"). As of the date of this Agreement and immediately after filing the Parent Restated Charter but prior to the Effective Time, there are 12,000,000 outstanding shares of Common Stock, and 28,000,000 outstanding shares of Parent Series A Preferred Stock and no outstanding shares of Parent Series A-1 Preferred Stock. Parent has no other shares of capital stock authorized, issued or outstanding.

(b) All of the outstanding options to purchase Parent Common Stock were issued pursuant to Parent's 2016 Stock Incentive Plan (the "Parent 2016 Option Plan"). A true and complete copy of the Parent 2016 Option Plan has been provided to the Company, and the Parent 2016 Option Plan has not been amended, modified or supplemented since being provided to the Company.

(c) As of the date of this Agreement, options to purchase 5,244,089 shares of Parent Common Stock have been granted and are outstanding (the "Outstanding Parent Options"). Other than the Outstanding Parent Options and the conversion rights of the Parent Series A Preferred Stock, there are no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any stock of Parent or other securities of Parent; (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any stock of Parent or other securities of Parent; or (iii) agreement under which Parent is or may become obligated to sell or otherwise issue any stock of Parent or any other securities of Parent. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to give rise to or provide a reasonable basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of capital stock of Parent. There are no outstanding or authorized stock appreciation, stock unit, phantom stock, profit participation or other similar rights with respect to Parent. Except for the Parent Voting Agreement, Parent is not a party to, and as of the date hereof, there are no other voting trusts, proxies, or other Contracts or understandings with respect to the voting stock of Parent.

3.8 Parent Tax Matters.

(a) Tax Returns and Audits.

(i) Each of Parent and the Merger Sub has prepared and timely filed all material Returns required to be filed by it, and such Returns are true and correct in all material respects and have been completed in all material respects in accordance with applicable Law. Each of Parent and the Merger Sub has paid all Taxes it is required to pay (whether or not shown on any Return).

(ii) Each of Parent and the Merger Sub has complied in all material respects with all applicable Laws relating to the payment, reporting and withholding of Taxes (including, without limitation, withholding of Taxes pursuant to Sections 1441, 1442, 1445, 1446, 1471, 1472, 1473, and 1474 of the Code or similar provisions under any federal, state, local or foreign Law), has, within the time and in the manner prescribed by Law, withheld from employee wages or consulting compensation and timely paid over to the proper governmental authorities (or is properly holding for such timely payment) all amounts required to be so withheld and paid over under all applicable Laws, including federal and state income Taxes, state, local and foreign sales, use or other similar Taxes, Federal Insurance Contribution Act, Medicare, relevant state income and employment Tax withholding Laws, and has timely filed all withholding and sales or use Tax Returns, for all periods.

(iii) Each of Parent and the Merger Sub has never been delinquent in the payment of any Tax, nor is there any Tax deficiency outstanding, assessed or proposed against Parent, nor has Parent executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any Tax.

(iv) Each of Parent and the Merger Sub has disclosed on its federal income Tax Returns all positions that could give rise to a substantial understatement penalty under Section 6662 of the Code.

(v) No audit or other examination of any Return of Parent or Merger Sub is presently in progress, nor has Parent or Merger Sub been notified by any Tax authority (orally or in writing, formally or informally) of any threat or plan to request such an audit or other examination.

(vi) Each of Parent and the Merger Sub has no liabilities for unpaid federal, state, local or foreign Taxes that have not been accrued or reserved on the Current Parent Balance Sheet, whether asserted or unasserted, contingent or otherwise, and Neither Parent nor the Merger Sub has incurred no Liability for Taxes since the date of the Current Parent Balance Sheet other than in the ordinary course of business.

(vii) Each of Parent and the Merger Sub has made available to Company copies of all Returns for Parent and the Merger Sub filed for all periods since its inception, together with all related workpapers and analysis created by or on behalf of Parent and the Merger Sub.

(viii) There are (and, immediately following the Effective Time, there will be) no Liens on the assets of Parent or Merger Sub relating to or attributable to Taxes other than customary Liens for Taxes not yet due and payable.

(ix) Parent has never been, at any time, a "United States Real Property Holding Corporation" within the meaning of Section 897(c)(2) of the Code.

(x) There are no Tax rulings, requests for rulings, or "closing agreements" (as described in Section 7121 of the Code or any corresponding provision of state, local or foreign Tax Law) relating to Parent or Merger Sub that could affect the Company's Liability for Taxes for any period after the Closing Date. Neither Parent nor the Merger Sub will be required to include any item of income in, or exclude any item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing as a result of any: (i) adjustment pursuant to Section 481 of the Code (or any corresponding or similar provision of federal, state, local or foreign Tax Law); (ii) installment sale or open transaction disposition made on or prior to the Closing; (iii) prepaid amount received on or prior to the Closing; (iv) intercompany transaction or any excess loss account described in Treasury Regulations under Section 1502 of the Code; (v) election with respect to income from the discharge of indebtedness under Section 108(i) of the Code; or (vi) any similar election, action or agreement that would have the effect of deferring Liability for Taxes of Parent or Merger Sub from any period ending on or before the Closing Date to any period ending after the Closing Date.

(xi) With respect to any stock or other property transferred in connection with the performance of services for Parent or Merger Sub, a valid Section 83(b) election in accordance with the requirements of the Code has been made, copies of which have been made available to Company.

(xii) Except as set forth in Section 3.8(a)(xii) of the Parent Schedule of Exceptions, Parent is not party to any Contract, Parent Employee Plan, employment agreement or other arrangement that is in any part a "nonqualified deferred compensation plan" subject to Section 409A of the Code and the regulations and other guidance promulgated thereunder. Parent is not a party to, or otherwise obligated under, any Contract, Parent Employee Plan, employment agreement or other arrangement that provides for a gross up of any Tax imposed by Section 409A of the Code. Each such nonqualified deferred compensation plan has been operated in compliance in all material respects in both form and in operation with Section 409A of the Code. No Outstanding Parent Options or other right to acquire capital stock of Parent (A) has an exercise price that has ever been less than the fair market value of the underlying equity as of the date such option or right was granted, (B) has any feature for the deferral of compensation other than the deferral of recognition of income until the later of exercise or disposition of such option or rights (within the meaning of Section 409A of the Code), (C) has been granted after December 31, 2004, with respect to any class of stock of Parent that is not "service recipient stock" (within the meaning of applicable regulations under Section 409A of the Code) or (D) has failed to be properly accounted for in accordance with GAAP in the Parent Financial Statements.

3.9 Property. The property and assets that Parent and the Merger Sub owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair Parent's and the Merger Sub's ownership or use of such property or assets. With respect to the property and assets it leases, Parent and the Merger Sub are in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances other than those of the lessors of such property or assets. Parent and the Merger Sub do not own any real property.

3.10 Parent Intellectual Property. Parent owns or possesses sufficient legal rights to all Parent Intellectual Property used by it as of the date of this Agreement and, as so used, without any known conflict with, or known infringement of, the rights of others. To Parent's knowledge, no product or service marketed or sold (or proposed to be marketed or sold) by Parent violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than as set forth on Section 3.11 of the Parent Schedule of Exceptions and with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Parent Intellectual Property, nor is Parent bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. Parent has not received any communications alleging that Parent has violated, or by conducting its business, would violate any of the patents, trademarks, service marks, tradenames, copyrights, trade secrets, mask works or other proprietary rights or processes of any other Person. Parent has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with Parent's business. To Parent's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by Parent. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the

Company's business as now conducted and as presently proposed to be conducted. Subsection 3.11 of the Company Schedule of Exceptions lists all patents and patent applications that are Company Intellectual Property as of the date of this Agreement. For purposes of this Subsection 3.11, the Company shall be deemed to have knowledge of a patent right if the Company has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent laws.

3.11 Fees and Expenses. Neither Parent nor the Merger Sub has incurred, nor will either incur, directly or indirectly, any Liability for investment banking fees or for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby.

3.12 No Changes. Since the date of the Current Parent Balance Sheet, there has or have not been, occurred or arisen any Parent Material Adverse Effect, and no event has occurred or circumstance has arisen that, in combination with any other events or circumstances, will or would reasonably be expected to have or result in a Parent Material Adverse Effect.

3.13 Parent Interested Person Transactions.

(a) No officer or director of Parent or, to the knowledge of Parent, holder of more than five percent (5%) of the outstanding shares of Parent capital stock (nor any ancestor, sibling, descendant or spouse of any of such Persons, or any trust, partnership, corporation or other Person in which any of such Persons has or has had an interest), (a "Parent Interested Person"), has or has had, directly or indirectly, (i) an economic interest in any entity which furnished or sold, or furnishes or sells, services, products or technology that Parent furnishes or sells, or proposes to furnish or sell, or (ii) any economic interest in any entity that purchases from or sells or furnishes to Parent, any services, products or technology, or (iii) a beneficial interest in any Contract to which Parent is a party, except in the case of clause (iii) in any such Person's capacity as an officer, director or stockholder of Parent; provided, however, that ownership of no more than five percent (5%) of the outstanding voting stock of a private corporation, or one percent (1%) of the outstanding voting stock of a publicly traded corporation, shall not be deemed to be an "interest in any entity" for purposes of this Section 3.12.

(b) All transactions pursuant to which any officer, director or stockholder of Parent any Parent Interested Person has purchased any services, products or technology from, or sold or furnished any services, products or technology to, Parent, have been on an arms' length basis on terms no less favorable to Parent than would be available from an unaffiliated party.

3.14 Governmental Authorization. Each material consent, license, permit, grant or other authorization (i) pursuant to which Parent currently operates or holds any interest in any of its properties, or (ii) which is required for the operation of Parent's business as currently conducted has been issued or granted to Parent and is in full force and effect and is not and will not be affected by the transactions contemplated hereby.

3.15 Litigation. There is no action, suit, claim or proceeding of any nature pending or, to the Knowledge of Parent, threatened or reasonably anticipated against or involving Parent, any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such. There is no investigation, inquiry or other proceeding pending or, to the Knowledge of Parent, threatened or reasonably anticipated against or involving Parent any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such by or before any Governmental Entity. No Governmental Entity has provided Parent with written notice challenging or questioning the legal right of Parent to conduct its operations as conducted at that time or as presently conducted.

3.16 Compliance with Laws. Parent has complied in all material respects with, is not in material violation of, and has not received any notices of violation with respect to, foreign, federal, state or local Laws. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to (with or without notice or lapse of time) constitute or result in a material violation by Parent of, or a failure on the part of Parent to comply in any material respect with, any applicable Law.

3.17 Employee Benefit Plans and Compensation.

(a) Schedule. Section 3.17(a)(1) of the Parent Schedule of Exceptions contains an accurate and complete list of each Parent Employee Plan. Parent has not made any plan or commitment to establish, adopt or enter into any new Parent Employee Plan, or to modify any Parent Employee Plan (except to the extent required by Law). Section 2.17(a)(2) of the Parent Schedule of Exceptions sets forth a table listing the name and salary of each exempt employee and/or consultant of Parent.

(b) Documents. Parent has made available to the Company, to the extent existing, (i) correct and complete copies of all documents embodying each Parent Employee Plan, including all amendments, summary plan descriptions, and trust documents, (ii) the three (3) most recent annual reports (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA for any Parent Employee Plan, (iii) if any Parent Employee Plan is funded, the most recent annual and periodic accounting of such Parent Employee Plan's assets, (iv) all material written Contracts relating to each Parent Employee Plan, including administrative service agreements, trust agreements and group insurance contracts, (v) all material communications relating to any established or proposed Parent Employee Plan that relates to any material amendments, terminations, increases or decreases in benefits, acceleration of payments or vesting schedules or other events that would result in any Liability to Parent or its ERISA Affiliates, (vi) all material correspondence to or from any Governmental Entity relating to any Parent Employee Plan, (vii) all policies pertaining to fiduciary liability insurance covering the fiduciaries for each Parent Employee Plan, (viii) discrimination test results for each Parent Employee Plan for the three (3) most recent plan years, (ix) the most recent IRS determination letter (or opinion letter in the case of a prototype plan) issued with respect to each Parent Employee Plan, and (x) visa and work permit information with respect to current Parent Personnel.

(c) Employee Plan Compliance. Each Parent Employee Plan has been established and maintained in accordance with its terms and in material compliance with all applicable Laws. Parent has performed all material obligations required to be performed by it under each Parent Employee Plan. Each Parent Employee Plan intended to be qualified under Section 401(a) of the Code has obtained a favorable determination letter from the IRS or is

entitled to rely on an opinion letter issued to the Parent Employee Plan's prototype sponsor. There are no actions, suits or claims pending or, to the Knowledge of Parent, threatened or reasonably anticipated (other than routine claims for benefits) against any Parent Employee Plan or against the assets of any Parent Employee Plan. Each Parent Employee Plan that is not an agreement with any Parent Personnel can be amended, terminated or otherwise discontinued prior to the Effective Time in accordance with its terms, without Liability to Parent or the Company (other than ordinary administration expenses). There are no audits, inquiries or proceedings pending or to the Knowledge of Parent, threatened, or reasonably anticipated, by the IRS, United States Department of Labor or any other Governmental Entity with respect to any Parent Employee Plan. The Company has made all contributions and other payments required by and due under the terms of each Parent Employee Plan.

(d) No Pension Plans or Welfare Plans. Neither Parent nor any of its ERISA Affiliates has ever maintained, established, sponsored, participated in, or contributed to, and does not otherwise have any Liability with respect to or under any (i) employee benefit plan subject to Section 412 of the Code or Title IV of ERISA (ii) "multiemployer plan" within the meaning of Section (3)(37) of ERISA, (iii) "multiple employer plans" for purposes of ERISA, or (iv) a "funded welfare plan" within the meaning of Section 419 of the Code. No Parent Employee Plan provides health or disability benefits that are not fully insured through an insurance contract.

3.18 Data Privacy. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any Personal Information, Parent is and has been in compliance with all applicable laws in all relevant jurisdictions, Parent's privacy policies and the requirements of any contract or codes of conduct to which Parent is a party. Parent has commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. Parent is and has been in compliance in all material respects with all laws relating to data loss, theft and breach of security notification obligations.

ARTICLE 4

CONDUCT PRIOR TO THE EFFECTIVE TIME

4.1 Conduct of Business of the Company and Business of Parent. During the period from the date of this Agreement and continuing until the earlier of the termination of this Agreement or the Effective Time, (a) the Company agrees to operate the business of the Company in the usual, regular and ordinary course in substantially the same manner as heretofore conducted, except as expressly contemplated by this Agreement or otherwise consented to by Parent in writing and (b) Parent agrees to operate the business of Parent in the usual, regular and ordinary course in substantially the same manner as heretofore conducted, except as expressly contemplated by this Agreement or otherwise consented to by the Company in writing. The Company and Parent each further agree to pay their respective debts and Taxes when due, to pay or perform all other obligations when due (including pay accounts payable without extension), to use their commercially reasonable efforts to preserve intact their present respective business organizations, to preserve their respective cash in accordance with past practice, to use their commercially reasonable efforts to promptly collect all their respective

receivables, to use their commercially reasonable efforts to keep available the services of their present respective officers and employees (other than termination for cause following notice to and consultation with one another), to use their commercially reasonable efforts to preserve and maintain in full force and effect all Owned Company Intellectual Property and Owned Parent Intellectual Property (respectively), to timely pay all fees, costs, royalties, and expenses relating to Owned Company Intellectual Property and Owned Parent Intellectual Property (respectively), and to timely file and pay for all applications, statements, documents, extensions, disclaimers, and registrations relating to Owned Company Intellectual Property and Owned Parent Intellectual Property (respectively), and to preserve their respective relationships with customers, suppliers, distributors, licensors, licensees and others having business dealings with the Company and Parent, respectively. The Company shall promptly notify Parent of any event or occurrence or emergency not in the ordinary course of business of the Company and any material event involving the Company, and Parent shall promptly notify the Company of any event or occurrence or emergency not in the ordinary course of business of Parent and any material event involving Parent.

ARTICLE 5

ADDITIONAL AGREEMENTS

5.1 Stockholder Matters.

(a) Within twenty-four (24) hours following the execution of this Agreement, the Company shall deliver to Parent (i) the duly and validly executed Stockholder Consent signed by the holders of at least ninety-nine percent (99%) of the outstanding shares of Company Capital Stock and (ii) duly and validly executed Stockholder Joinder Agreements signed by the holders of at least ninety-nine percent (99%) of the outstanding shares of Company Capital Stock and officers and directors of the Company.

(b) At least 2 Business Days prior to the Effective Time, the Company shall have given such notice to the holders of Company Options as reasonably required by the terms of the Plan or other applicable agreement in connection with the Merger, including any such notice as may be required to cause each Company Option (to the extent not exercised or converted) to terminate as of the Effective Time.

(c) Prior to the termination of this Agreement, the board of directors of the Company shall not revoke or modify its unanimous approval of this Agreement, the Merger and the other transactions contemplated by this Agreement, including its unanimous recommendation in favor of this Agreement, the Merger and the other transactions contemplated by this Agreement. Prior to the termination of this Agreement, the board of directors of Parent and the Merger Sub shall not revoke or modify its unanimous approval of this Agreement, the Merger and the other transactions contemplated by this Agreement, including its unanimous recommendation in favor of this Agreement, the Merger and the other transactions contemplated by this Agreement.

5.2 Access to Information. Each of the Company and Parent shall afford each other and their respective accountants, counsel and other representatives, reasonable access during the period from the date hereof and prior to the Effective Time to (i) all of their respective properties, books, Contracts, commitments and records, including each other's source code, (ii) other information concerning the business, properties and personnel (subject to restrictions imposed by applicable Law) of the Company or Parent, as the case may be, as the other may reasonably request, and (iii) all Company Personnel identified by Parent and all Parent Personnel identified by the Company. The Company agrees to provide to Parent, and Parent agrees to provide to the Company, and their respective accountants, counsel and other representatives copies of internal financial statements (including Tax Returns and supporting documentation) promptly upon request. Each of Parent and the Company may make inquiries of Persons having business relationships with the Company or Parent, respectively, (including suppliers, licensors and customers). Without limiting the generality of any of the foregoing, each of the Company and Parent shall provide the other with reasonable access to all information relating to, and cooperate with Parent and the Company in their respective due diligence investigations regarding, the Foreign Corrupt Practices Act of 1977, as amended and other anti-corruption matters. No information or knowledge obtained in any investigation pursuant to this Section 5.2 shall affect or be deemed to modify any representation or warranty contained herein, any conditions to the obligations of the parties to consummate the Merger in accordance with the terms and provisions hereof or any rights or remedies of the parties hereunder.

5.3 Expenses. Except as otherwise provided in this Agreement, the Parties shall pay their own legal and other fees and expenses incurred in connection with negotiating, executing and performing this Agreement and the transactions contemplated hereby, including any related broker's or finder's fees.

5.4 Public Disclosure. Neither the Company nor Parent shall issue or make any statement or communication to any third-party (other than to its respective agents) regarding the terms or subject matter of this Agreement or the transactions contemplated hereby, including, if applicable, the termination of this Agreement and the reasons therefor, without the prior written consent of the other party.

5.5 Commercially Reasonable Efforts. Each of the parties hereto shall use commercially reasonable efforts to take promptly, or cause to be taken promptly, all actions, and to do promptly, or cause to be done promptly, all things necessary, proper or advisable under applicable Laws to consummate and make effective the transactions contemplated hereby, to obtain all necessary waivers, consents and approvals and to effect all necessary registrations, recordations, assignments, transfers, payments, and filings in order to consummate and make effective the transactions contemplated by this Agreement for the purpose of securing to the parties hereto the benefits contemplated by this Agreement.

5.6 Notification of Certain Matters. Each party hereto shall give prompt notice to the other party hereto (either Parent or the Company, as appropriate) of: (a) the occurrence or non-occurrence of any event which is reasonably likely to cause any representation or warranty of such party contained in this Agreement to be untrue or inaccurate at or prior to the Effective Time and (b) any failure of such party to comply with or satisfy any covenant, condition or agreement to be complied with or satisfied by it hereunder; provided, however, that the delivery of any notice pursuant to this Section 5.6 shall not (i) limit or otherwise affect any rights of or remedies available to the party receiving such notice, or (ii) constitute an acknowledgment or admission of a breach of this Agreement. No disclosure pursuant to this Section 5.6, however, shall be deemed to amend or supplement the Schedule of Exceptions or prevent or cure any misrepresentations, breach of warranty or breach of covenant.

5.7 Additional Documents and Further Assurances. Each party hereto, at the request of another party hereto, shall execute and deliver such other instruments and do and perform such other acts and things as may be necessary or desirable for effecting completely the consummation of the Merger and the transactions contemplated hereby.

5.8 Spreadsheets. The Company shall prepare, and deliver to Parent at least two (2) Business Days prior to the Closing Date, a spreadsheet certified by the Chief Executive Officer of the Company as true, complete, correct and in accordance with this Agreement and the Company Charter Documents as of the Closing, and which separately lists (the spreadsheet containing the information set forth, and otherwise in form and substance as referred to, in this Section 5.8 being referred to as a "Spreadsheet"):

(a) the Total Fully Diluted Shares of the Company reasonably itemized and detail, and each party's calculation of the Exchange Ratio based thereon;

(b) with respect to each Company Stockholder as of immediately prior to the Effective Time: (i) the name and address of such holder; (ii) the number, class and series of shares of Company Capital Stock held by such holder immediately prior to the Effective Time (broken out on a certificate by certificate basis, including the respective certificate numbers); and (iii) the number of shares of Parent Common Stock, and Parent Series A-1 Preferred Stock payable to each holder pursuant to Section 1.6(a) hereof; and

(c) with respect to each holder of a Company Option as of immediately prior to the Effective Time: (i) the name and address of such holder; (ii) the number of shares and exercise price subject to such Company Common Stock exercisable by such holder immediately prior to the Effective Time; and (iii) the number of shares of Parent Common Stock that will be subject to a Parent stock option award agreement issuable to each holder pursuant to Section 1.6(b) hereof.

5.9 Transfer Taxes. All transfer, documentary, sales, use, stamp, registration and all other Taxes, fees and duties, if any, incurred in connection with the transactions contemplated by this Agreement, and all expenses associated therewith, will be borne and paid 50% by Parent and 50% by the Company Stockholders. Parent will prepare and file all necessary Tax Returns and other documentation with respect to all such transfer, documentary, sales, use, stamp, registration and other Taxes and fees, and, if required by applicable Law, the other parties.

5.10 Tax-Free Reorganization. Parent and the Company will (i) use all reasonable best efforts to cause the Merger to constitute a reorganization under Section 368(a) of the Code, (ii) file all Returns consistent with the Merger qualifying as a reorganization within the meaning of Section 368(a) of the Code, unless required otherwise by a change in applicable Law, and (iii) not take any action or fail to take any action required hereby that could reasonably be expected to prevent or impede the Merger from qualifying as a reorganization within the meaning of Section 368(a) of the Code. Parent and the Company agree to defend the intended tax treatment in any audit in good faith until there is a contrary assessment or determination made by a Governmental Entity.

5.11 Indemnification of Company Directors and Officers. Parent and the Surviving Corporation shall indemnify each officer or director of the Company who is or may be entitled to indemnification and related reimbursement or advancement of expenses from the Company for acts or omissions in such individual's capacity as an officer or director of the Company pursuant to the Company Charter Documents, pursuant to any indemnification agreement or other similar agreement between the Company and such officer or director, or pursuant to any applicable Law, to the same extent as such Company indemnification obligations in effect immediately prior to Closing.

5.12 Confidentiality.

(a) Any party hereunder ("Disclosing Party") may have disclosed or will disclose to some other party ("Receiving Party"), and Receiving Party may have acquired or will acquire during the course and conduct of activities under, or the negotiations of this Agreement and each of the other agreements and instruments contemplated hereby to be executed by the parties hereto (the "Transaction Documents"), certain proprietary or confidential information of Disclosing Party. Such information, in addition to any and all processes, formulae, data, Trade Secrets, improvements, inventions, techniques, marketing plans, strategies, customer lists or other information that has been created, discovered or developed by the Disclosing Party, or has otherwise become known to the Disclosing Party, or to which rights have been granted or assigned to the Disclosing Party, as well as any other information and materials that are marked or designated as confidential or proprietary to or by the Disclosing Party (including all information and materials of the Disclosing Party's customers and any other third-party and their consultants), in each case, that are disclosed by the Disclosing Party or its representatives to the Receiving Party or its representatives, as well as the existence and terms of the Transaction Documents, will be considered "Confidential Information" hereunder. During the period ending on the 5-year anniversary of this Agreement, Receiving Party will keep all Disclosing Party's Confidential Information in confidence and with the same degree of care with which Receiving Party holds its own confidential information (though no less than reasonable care) and will not use, and will cause its Affiliates and their respective officers, directors, employees, consultants, contractors, subcontractors, licensees, sublicensees, or agents not to use, Disclosing Party's Confidential Information except for in connection with the performance of its obligations and exercise of its rights under the Transaction Documents or as otherwise expressly permitted hereunder.

(b) Exceptions. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information set forth in Section 5.12(a) will not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (i) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates; (ii) is obtained by Receiving Party or any of its Affiliates after the date hereof from a third-party under no obligation of confidentiality with respect to such information; or (iii) is independently developed after the date hereof by employees, consultants, contractors or agents of Receiving Party or any of its Affiliates without the aid, application or use of Disclosing Party's Confidential Information.

(c) Permitted Disclosures. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(i) in order to comply with applicable Law or the rules of any securities exchange or with a legal or administrative proceeding; and

(ii) in connection with performing its obligations and exercising any rights under this Agreement or the Transaction Documents or in connection with any litigation or dispute resolution proceedings between the parties hereto.

If and whenever any Confidential Information is disclosed in accordance with this Section 5.12(c), such disclosure shall not cause any such information to cease to be Confidential Information except to the extent that such disclosure results in a public disclosure of such information. The Receiving Party shall notify the Disclosing Party of the Receiving Party's intent to make any disclosures pursuant to Section 5.12(c)(i) or 5.12(c)(ii) sufficiently prior to making such disclosure so as to allow the Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information (including seeking a confidential treatment order or protective or limiting order, as applicable), and the Receiving Party will provide reasonable assistance to the Disclosing Party with respect thereto; provided that, in any event, the Receiving Party will use reasonable measures to ensure confidential treatment of such information and shall only disclose such Confidential Information of the Disclosing Party as is necessary to comply with such Laws or judicial process. Notwithstanding the foregoing or anything contained in this Section 5.12(c) to the contrary, the Investors (as defined in the Parent Investors' Rights Agreement) shall be permitted to disclose Confidential Information in accordance with Section 3.4 of the Parent Investors' Rights Agreement.

ARTICLE 6

CONDITIONS TO THE MERGER

6.1 Conditions to the Obligations of Each Party to Effect the Merger. The respective obligations of the Company, Parent and the Merger Sub to effect the Merger shall be subject to the satisfaction, at or prior to the Closing, of the following conditions:

(a) No Injunctions or Restraints; Illegality. No Governmental Entity shall have enacted, issued, promulgated, enforced or entered any statute, rule, regulation, executive order, decree, injunction or other order (whether temporary, preliminary or permanent) which is in effect and which has the effect of making the Merger illegal or otherwise prohibiting the consummation of the Merger.

(b) Stockholder Consent. The Stockholder Consent shall have been obtained such that the holders of at least ninety-nine percent (99%) of the outstanding Company Capital Stock shall have validly adopted and approved this Agreement, the Merger and the other transactions contemplated hereby and such approval shall not have been withdrawn, rescinded or revoked.

6.2 Additional Conditions to the Obligations of Parent and the Merger Sub. The obligation of Parent and the Merger Sub to effect the Merger also shall be subject to the satisfaction at or prior to the Closing of each of the following conditions, any of which may be waived, in writing, exclusively by Parent:

(a) Representations, Warranties and Covenants. (i) Each representation and warranty of the Company contained in this Agreement (A) shall have been true and correct on and as of the date of this Agreement and (B) shall be true and correct in all material respects on and as of the Closing Date with the same force and effect as if made on and as of the Closing Date (except for those representations and warranties which address matters only as of a particular date, which shall have been true and correct in all material respects as of such particular date); and (ii) the Company shall have performed and complied in all material respects with all covenants and obligations under this Agreement required to be performed and complied with by the Company prior to the Closing.

(b) Governmental Approvals. All filings with and approvals of any Governmental Entity required to be made or obtained in connection with the Merger and the other transactions contemplated by this Agreement shall have been made or obtained and shall be in full force and effect.

(c) No Orders. No temporary restraining order, preliminary or permanent injunction or other order issued by any court of competent jurisdiction or other legal restraint or prohibition (i) prohibiting Parent's ownership or operation of any portion of the business of the Company, or (ii) compelling Parent, Merger Sub or the Company to dispose of or hold separate all or any material portion of the business or assets of Parent, the Company or any of their respective Subsidiaries or Affiliates as a result of the Merger; or (iii) imposing any other antitrust restraint, shall be in effect (including as a condition to any Governmental approval referred to in Section 6.2(b) hereof), nor shall any action, suit, claim or proceeding brought by an administrative agency or commission or other Governmental Entity seeking any of the foregoing be threatened or pending.

(d) Litigation. There shall be no action, suit, claim or proceeding of any nature pending, or overtly threatened, against Parent, Merger Sub or the Company, their respective Subsidiaries or properties or any of their respective officers or directors, arising out of, or in any way connected with, the Merger or the other transactions contemplated by the terms of this Agreement.

(e) Mandatory Third-Party Consents. The Company shall have obtained all necessary consents to assignment, waivers and approvals, and timely provided all notifications, with respect to the transactions contemplated by this Agreement under those Contracts listed on Schedule 6.2(e).

(f) Termination of Agreements. The Company shall have terminated each of those agreements listed on Schedule 6.2(f), and each such agreement shall be of no further force or effect.

(g) Amendment of Agreements. The Company shall have amended each of those agreements listed on Schedule 6.2(g) in the manner specified on Schedule 6.2(g), and each such agreement shall be in full force and effect, as amended.

(h) Resignation of Officers and Directors. Parent shall have received a written resignation from each of the officers and directors of the Company effective as of the Closing.

(i) No Company Material Adverse Effect. Since the date of this Agreement, there shall not have occurred any event, change or effect and no circumstance or condition of any character shall exist that, individually or in combination with all other events, changes, effects, circumstances or conditions, has had or would reasonably be expected to have or result in a Company Material Adverse Effect.

(j) Certificate of the Company. Parent shall have received a certificate, validly executed by the Chief Executive Officer of the Company for and on its behalf, to the effect that, as of the Closing, (i) the condition to the obligations of Parent and the Merger Sub set forth in Section 6.2(a) hereof has been duly satisfied and (ii) each and every one of the other conditions to the obligations of Parent and the Merger Sub set forth in this Section 6.2 have been duly satisfied (unless otherwise waived in accordance with the terms hereof).

(k) Certificate of Officer of Company. Parent shall have received a certificate, validly executed by an authorized Officer of the Company, certifying as to (i) the terms and effectiveness of the Company Charter Documents, (ii) the valid adoption of resolutions of the board of directors of the Company (whereby the Merger and the other transactions contemplated by this Agreement were unanimously approved by the Board of Directors of the Company), (iii) the Stockholder Consent executed by holders of at least ninety-nine percent (99%) of the outstanding Company Capital Stock, (iv) the Stockholder Joinder Agreement executed by holders of at least ninety-nine percent (99%) of the outstanding Company Capital Stock, and (v) the incumbency of the executive officers of the Company.

(l) Certificate of Good Standing. Parent shall have received a certificate of good standing for the Company from each jurisdiction in which such entity is formed or is required to be qualified as a foreign corporation, dated within five (5) days prior to the Closing Date.

(m) [Reserved]

(n) FIRPTA Certificate. Parent shall have received a statement in a form reasonably acceptable to Parent for purposes of satisfying Parent's obligations under, and in form and substance as required under, Section 1445 of the Code and Treasury Regulation Section 1.1445-2(c)(3), validly executed by a duly authorized officer of the Company under penalty of perjury.

(o) Spreadsheet. Parent shall have received the Spreadsheet at least two (2) Business Days prior to the Closing Date, which shall have been certified as true, complete, correct and in accordance with this Agreement and the Company Charter Documents as of the Closing by the Chief Executive Officer of the Company.

(p) Unanimous Board Approval. The board of directors of the Company shall have unanimously approved the Merger and the other transactions contemplated by this Agreement.

(q) [Reserved]

(r) Certificate of Merger. The Company shall have duly executed and delivered the Certificate of Merger to Parent.

(s) Voting Agreement. Each of the Company Stockholders has duly executed and delivered to Parent a joinder to the Parent Voting Agreement, joining such person or entity to such agreement as Stockholder (as defined therein).

(t) Right of First Refusal. Each of the Company Stockholders has duly executed and delivered to Parent a joinder to the Parent Right of First Refusal Agreement, joining such person or entity to such agreement as an Investor (as defined therein) or Key Holder (as defined therein).

(u) Investors' Rights Agreement. Each of the Company Stockholders has duly executed and delivered to Parent a joinder to the Parent Investors' Rights Agreement, joining such person or entity to such agreement as Stockholder (as defined therein).

(v) [Reserved].

(w) Waiver. The Company, AskAt and each of the Company Stockholders subject to the Company Restricted Stock Agreement shall have executed and delivered to Parent a signature page to the Waiver.

6.3 Additional Conditions to the Obligations of the Company. The obligation of the Company to effect the Merger also shall be subject to the satisfaction at or prior to the Closing of each of the following conditions, any of which may be waived, in writing, exclusively by the Company:

(a) Representations and Warranties. Each representation and warranty of Parent and the Merger Sub contained in this Agreement (i) shall have been true and correct on and as of the date of this Agreement, (ii) shall be true and correct in all material respects on and as of the Closing Date as if made on and as of the Closing Date (except for those representations and warranties which address matters only as of a particular date, which shall have been true and correct in all material respects as of such particular date) and (iii) Parent and the Merger Sub shall have performed and complied in all respects with all covenants and obligations under this Agreement required to be performed and complied with by Parent or Merger Sub prior to the Closing.

(b) Certificate of Parent. The Company shall have received a certificate, validly executed on behalf of Parent by a duly authorized officer of Parent to the effect that, as of the Closing, (i) the conditions to the obligations of the Company set forth in Section 6.3(a) have been satisfied and (ii) each and every one of the other conditions to the obligations of the Company set forth in this Section 6.3 have been duly satisfied (unless otherwise waived in accordance with the terms hereof).

(c) No Parent Material Adverse Effect. There shall not have occurred any event, change or effect and no circumstance or condition of any character shall exist that, individually or in combination with all other events, changes, effects, circumstances or conditions, has had or would reasonably be expected to have or result in a Parent Material Adverse Effect.

(d) Second Amended and Restated Certificate of Incorporation. Parent shall have filed its Second Amended and Restated Certificate of Incorporation in the form attached hereto as Exhibit D (the "Parent Restated Charter") with the Secretary of State of the State of Delaware.

(e) Certificate of Secretary of Parent. The Company shall have received a certificate, validly executed by the Secretary of Parent, certifying as to (i) the terms and effectiveness of the Parent Restated Charter and bylaws, (ii) the valid adoption of resolutions of the board of directors of Parent and the Merger Sub whereby the Merger and the other transactions contemplated by this Agreement were approved by the Board of Directors of Parent and the Merger Sub, and (iii) the incumbency of the executive officers of Parent.

(f) Certificate of Good Standing. The Company shall have received a certificate of good standing for Parent from the State of Delaware, dated within five (5) days prior to the Closing Date.

(g) Certificate of Merger. The Certificate of Merger shall have been duly filed with, and accepted by, the Secretary of State of the State of Delaware.

ARTICLE 7
TERMINATION, AMENDMENT AND WAIVER

7.1 Termination. Except as provided in Section 7.2 hereof, this Agreement may be terminated and the Merger abandoned at any time prior to the Effective Time:

(a) by mutual written consent of the Company and Parent;

(b) by Parent or the Company if: the Effective Time has not occurred before 5:00 p.m. (Eastern time) on January 16, 2019 (the "End Date"); provided, however, that if the Effective Time shall not have occurred before the End Date, but as of the End Date all of the conditions to the obligations of the parties to consummate the Merger pursuant to Article 6 hereof (other than those conditions that by their nature are to be satisfied at the Closing) have been satisfied or waived in writing, then at the election of either Parent or the Company, the End Date shall be extended a maximum of one (1) time for up to thirty (30) days; provided, further, however, that the right to terminate this Agreement under this Section 7.1(b) shall not be available to any party whose willful failure to fulfill any obligation hereunder has been the principal cause of, or resulted in, the failure of the Effective Time to occur on or before the End Date;

(c) by Parent or the Company if (i) there shall be a final non-appealable order of a court of competent jurisdiction in effect preventing consummation of the Merger, or (ii) there shall be any statute, rule, regulation or order enacted, promulgated or issued or deemed applicable to the Merger by any Governmental Entity that would make consummation of the Merger illegal;

(d) by Parent, if Parent is not in material breach of any material terms of this Agreement, upon a breach of any representation, warranty, covenant or agreement on the part of the Company set forth in this Agreement, or if any representation or warranty of the Company shall have become untrue, in either case such that the conditions set forth in Section 6.2(a) would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue; provided, however that if any such inaccuracy in the Company's representations and warranties or breach by the Company is curable by the Company prior to the End Date through the exercise of its commercially reasonable efforts, then Parent may not

terminate this Agreement under this Section 7.1(d) prior to the end of a fifteen (15) day period following such breach (or inaccuracy arising) so long as the Company continues to exercise commercially reasonable efforts to cure such breach during such period (it being understood that Parent may not terminate this Agreement pursuant to this Section 7.1(d) if such breach by the Company is cured prior to the end of such period);

(e) by the Company, if the Company is not in material breach of any material terms of this Agreement, upon a breach of any representation, warranty, covenant or agreement on the part of Parent or Merger Sub set forth in this Agreement, or if any representation or warranty of Parent or Merger Sub shall have become untrue, in either case such that the conditions set forth in Section 6.3(a) would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue; provided, however that if any such inaccuracy in Parent's or Merger Sub's representations and warranties or breach by Parent or Merger Sub is curable by Parent or Merger Sub prior to the End Date through the exercise of its commercially reasonable efforts, then the Company may not terminate this Agreement under this Section 7.1(e) prior to the end of a fifteen (15) day period following such breach (or inaccuracy arising) so long as Parent or Merger Sub, as applicable, continues to exercise commercially reasonable efforts to cure such breach during such period (it being understood that the Company may not terminate this Agreement pursuant to this Section 7.1(e) if such breach by Parent or Merger Sub is cured prior to the end of such period);

(f) by the Company, if the Company is not in material breach of any material terms of this Agreement, if a Parent Material Adverse Effect shall have occurred after the date of this Agreement and such Parent Material Adverse Effect has not been cured within thirty (30) days;

(g) by Parent, if Parent is not in material breach of any material terms of this Agreement, if a Company Material Adverse Effect shall have occurred after the date of this Agreement and such Company Material Adverse Effect has not been cured within thirty (30) days; or

(h) by Parent, if the Company has not obtained and delivered to Parent the Stockholder Consent and Stockholder Joinder Agreements pursuant to the requirements of Section 5.1(a) hereof.

7.2 Effect of Termination. In the event of termination of this Agreement as provided in Section 7.1 hereof, this Agreement shall forthwith become void and there shall be no Liability on the part of Parent, Merger Sub, the Company or their respective officers, directors, employees, agents, consultants, representatives or stockholders (in their respective capacities as such), if applicable; provided, however, that each party hereto shall remain liable for any willful breach of this Agreement by such party prior to its termination; and provided further, that, the provisions of Sections 5.3 (Expenses), 5.4 (Public Disclosure) and 5.12 (Confidentiality), hereof, Article 8 (General Provisions) hereof and this Section 7.2 (Effect of Termination) shall remain in full force and effect and survive any termination of this Agreement pursuant to the terms of this Article 7.

7.3 Amendment. This Agreement may be amended by the parties hereto at any time by execution of an instrument in writing signed on behalf of the party against whom enforcement is sought. For purposes of this Section 7.3, the Company Stockholders agree that any amendment of this Agreement signed by the Stockholder Representative after the Effective Time shall be binding upon and effective against the Company Stockholders whether or not they have signed such amendment; provided, however, that after the adoption of this Agreement by the Company Stockholders and without their further approval, no such amendment shall reduce the amount of or change the kind of consideration to be received in exchange for any shares of Company Capital Stock.

7.4 Extension; Waiver. At any time prior to the Effective Time, Parent and the Company may, to the extent legally allowed, (a) extend the time for the performance of any of the obligations of the other party hereto, (b) waive any inaccuracies in the representations and warranties made to such party contained herein or in any document delivered pursuant hereto, and (c) waive compliance with any of the agreements or conditions for the benefit of such party contained herein. Any agreement on the part of a party hereto to any such extension or waiver shall be valid only if set forth in an instrument in writing signed on behalf of such party. For purposes of this Section 7.4, the Company Stockholders agree that any extension or waiver signed by the Company or Stockholder Representative shall be binding upon and effective against all Company Stockholders whether or not they have signed such extension or waiver. Such extension or waiver shall not be deemed to apply to any time for performance, inaccuracy in any representation or warranty, or noncompliance with any agreement or condition, as the case may be, other than that which is specified in the extension or waiver. The failure of any party to this Agreement to assert any of its rights under this Agreement or otherwise shall not constitute a waiver of such rights.

ARTICLE 8

GENERAL PROVISIONS

8.1 Survival of Warranties. None of the representations and warranties contained in this Agreement or in any certificate or schedule delivered pursuant to this Agreement shall survive the Effective Time. In furtherance, not limitation, of the foregoing, the Parties, intending to contractually shorten any otherwise applicable statute of limitations, hereby agree that: (a) the representations and warranties herein are intended solely to facilitate disclosure and to give effect to the closing conditions set forth in Sections 6.1, 6.2 and 6.3 and (b) no claim of any kind based on the failure of any representation or warranty to have been true and correct may be brought at any time after the Effective Time.

8.2 Notices. All notices and other communications hereunder shall be in writing and shall be deemed duly delivered (a) five (5) Business Days after being sent by registered or certified mail, return receipt requested, postage prepaid, (b) one (1) Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable nationwide overnight courier service, or (c) on the first Business Day following the date of confirmation of receipt of transmission by facsimile, in each case to the intended recipient as set forth below:

(a) if to Parent or Merger Sub, to:

Kyn Therapeutics Inc.
1030 Massachusetts Avenue
Suite 400
Cambridge, MA 02138

Attention: Chief Executive Officer
with a copy (which shall not constitute notice) to:

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
Attention: [***]
Facsimile No.: [***]

(b) if to the Company (prior to the Effective Time), to:

Arrys Therapeutics, Inc
601 Lexington Avenue, 54th Floor
New York, NY 10022
Attention: Chief Executive Officer

(c) if to the Stockholder Representative, to:

OrbiMed Private Investments VI, LP
601 Lexington Avenue, 54th Floor
New York, NY 10022
Attention: [***]

with a copy (which shall not constitute notice) to:

Greenberg Traurig, P.A.
401 East Las Olas Boulevard Suite 2000
Fort Lauderdale, FL 33301
Attention: [***]

Any party to this Agreement may change the address to which notices and other communications hereunder are to be delivered by giving the other parties to this Agreement notice in the manner herein set forth.

8.3 Interpretation. The words “include,” “includes” and “including” when used herein shall be deemed in each case to be followed by the words “without limitation.” The table of contents and headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement. The term “willful breach” shall mean an action or omission that constitutes a breach of a covenant and that was taken or omitted to be taken for the purpose of breaching such covenant and was not merely a volitional action or omission but does not require malicious or tortious intent. The term “intentional misrepresentation” shall mean that an action or omission that constitutes a breach of a representation or warranty and that was taken or omitted to be taken for the purpose of misleading the party to whom such representation or warranty was made and was not merely a volitional action or omission but does not otherwise require malicious or tortious intent.

8.4 Counterparts. This Agreement may be executed by facsimile or other electronic transmission and in one or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party, it being understood that all parties need not sign the same counterpart.

8.5 Entire Agreement; Assignment. This Agreement, the Company Schedule of Exceptions and Parent Schedule of Exceptions, and the documents and instruments and other agreements among the parties hereto referenced herein: (i) constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior agreements and understandings both written and oral, among the parties with respect to the subject matter hereof; and (ii) shall not be assigned by operation of Law or otherwise, except that Parent may assign its rights and delegate its obligations (other than the obligation to issue Merger Shares and other Merger consideration) hereunder to its Affiliates or (after the Closing) to any purchaser of the Surviving Corporation or of all or substantially all of the assets or business of the Surviving Corporation.

8.6 Severability. In the event that any provision of this Agreement or the application thereof, becomes or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the application of such provision to other Persons or circumstances will be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the economic, business and other purposes of such void or unenforceable provision.

8.7 Other Remedies. Any and all remedies herein expressly conferred upon a party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy.

8.8 Governing Law; Jurisdiction; Venue. EXCEPT AS OTHERWISE PROVIDED HEREIN, ALL QUESTIONS AND/OR DISPUTES CONCERNING THE CONSTRUCTION, VALIDITY AND INTERPRETATION OF THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY SHALL BE GOVERNED BY THE INTERNAL LAWS, AND NOT THE LAW OF CONFLICTS, OF THE STATE OF DELAWARE. THE PARTIES HERETO, HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREE TO BE SUBJECT TO, AND HEREBY CONSENT AND SUBMIT TO, THE JURISDICTION OF THE COURTS OF THE STATE OF DELAWARE AND AGREE THAT ANY ACTION INVOLVING ANY EQUITABLE OR OTHER CLAIM SHALL BE BROUGHT EXCLUSIVELY IN THE STATE OF DELAWARE. IN THE EVENT THAT THE COURTS OF THE STATE OF DELAWARE DO NOT ACCEPT JURISDICTION OVER ANY SUCH ACTION, THE PARTIES HERETO, HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREE THAT ANY SUCH ACTION THEN SHALL BE BROUGHT EXCLUSIVELY IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE.

8.9 Rules of Construction. The parties hereto agree that they have been represented by counsel during the negotiation and execution of this Agreement and, therefore, waive the application of any Law, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

8.10 Specific Performance. The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that Parent shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, this being in addition to any other remedy to which it is entitled at law or in equity.

8.11 Attorneys' Fees. If any action or other proceeding relating to the enforcement of any provision of this Agreement is brought by any party hereto, the prevailing party shall be entitled to recover reasonable attorneys' fees, costs, and disbursements (in addition to any other relief to which the prevailing party may be entitled).

8.12 Waiver of Conflicts. Each party to this Agreement acknowledges that Goodwin Procter, counsel for Parent, has in the past performed and may continue to perform legal services for the Company in matters unrelated to the transactions described in this Agreement. Accordingly, each party to this Agreement hereby (a) acknowledges that they have had an opportunity to ask for information relevant to this disclosure; and (b) gives its informed consent to Goodwin Procter's representation of the Company in such unrelated matters and to Goodwin Procter's representation of Parent in connection with this Agreement and the transactions contemplated hereby.

8.13 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY AND ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT, OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN NEGOTIATION, ADMINISTRATION, PERFORMANCE OR ENFORCEMENT HEREOF.

ARTICLE 9

DEFINITIONS

9.1 For all purposes of this Agreement, the following terms shall have the following respective meanings:

"Affiliate" shall mean, with respect to any Person, any other Person directly or indirectly through one or more intermediaries controlling, controlled by or under common control with such other Person.

"AskAt" shall mean AskAt Inc., a company organized under the laws of Japan.

"Business Day" shall mean any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions located in New York, New York are permitted or required by Law to remain closed.

"COBRA" shall mean the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended and as codified in Section 4980B of the Code and Section 601 et. seq. of ERISA.

"Code" shall mean the Internal Revenue Code of 1986, as amended.

"Company Capital Stock" shall mean all capital stock of the Company, whether or not issued or outstanding.

"Company Common Stock" shall mean shares of common stock, $0.001 par value per share, of the Company.

"Company Employee Plan" shall mean any plan, program, policy, practice, Contract or other arrangement providing for compensation, severance, bonus or incentive compensation, termination pay, deferred compensation, performance awards, stock or stock-related awards, retention or change of control bonus, fringe, retirement, death, disability or medical benefits or other employee benefits or remuneration of any kind, whether written, unwritten or otherwise, funded or unfunded (including each "employee benefit plan" within the meaning of Section 3(3) of ERISA) that is or has been maintained, contributed to, or required to be contributed to, by the Company or any ERISA Affiliate for the benefit of any Company Personnel, or with respect to which the Company or any ERISA Affiliate has or is reasonably expected to have any Liability.

"Company Intellectual Property" shall mean any and all Licensed Company Intellectual Property and Owned Company Intellectual Property.

"Company Material Adverse Effect" shall mean any change, event or effect that, individually or taken together with all other adverse changes, events or effects, is, or would reasonably be expected to be, materially adverse to (a) the business, assets (whether tangible or intangible), Liabilities, condition (financial or otherwise), operations, results of operations or capitalization of the Company, taken as a whole, or (b) the Company's ability to consummate the transactions contemplated by this Agreement or to perform its obligations under this Agreement; provided, however, none of the following shall be deemed in and of themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Company Material Adverse Effect: (i) any adverse effect to the extent attributable to the execution of this Agreement or the announcement or pendency of the Merger; (ii) any adverse effect that results from changes affecting the industries in which the Company participates (to the extent that such changes do not disproportionately adversely affect the Company as a whole compared to other firms in the industries in which the Company participates); (iii) changes in applicable legal requirements or GAAP after the date hereof; or (iv) any adverse effect that results from any act of God, any act of terrorism, war or other hostilities, any regional, national or international calamity or any other similar event.

"Company Options" shall mean Vested Options and Unvested Options.

"Company Personnel" shall mean any current or former Employee, consultant or director of the Company including, without limitation, all temporary employees, leased employees or other servants or agents employed or used with respect to the operation of the business of the Company.

"Company Restricted Stock Agreement" shall mean the Restricted Stock Agreement dated as of December 14, 2017 by and among the Company and the parties listed on Exhibit A thereto.

"Company Series A Preferred Stock" shall mean shares of Series A Preferred Stock, $0.001 par value per share, of the Company.

"Company Stockholders" shall mean the holders of outstanding shares of Company Capital Stock as of immediately prior to the Effective Time.

"Employee" shall mean any current or former employee of the Company.

"Employee Agreement" shall mean each management, employment, severance, consulting, relocation, repatriation, expatriation, visas, work permit or other Contract between the Company and any Company Personnel.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended.

"ERISA Affiliate" shall mean, with respect to a Person, any entity that is or would have ever been considered a single employer with such Person under Section 4001(b) of ERISA or part of the same "controlled group" as such Person for purposes of Section 302(d)(3) of ERISA.

"GAAP" shall mean United States generally accepted accounting principles, consistently applied.

"HIPAA" shall mean the Health Insurance Portability and Accountability Act of 1996, as amended.

"Indebtedness" shall mean, with respect to any Person (a) all obligations of such Person for borrowed money, whether current or funded, secured or unsecured, (b) all obligations of such Person for the deferred purchase price of any property or services (other than trade accounts payable arising in the ordinary course of the business of such Person), (c) all obligations of such Person secured by a purchase money mortgage or other lien to secure all or part of the purchase price of property subject to such mortgage or lien, (d) all obligations under leases which shall have been or should be, in accordance with GAAP or other generally accepted accounting principles as applicable to such Person, recorded as capital leases in respect of which such Person is liable as lessee, (e) any obligation of such Person in respect of letters of credit or bankers' acceptances, (f) any obligations secured by Liens on property acquired by such Person, whether or not such obligations were assumed by such Person at the time of acquisition of such property, (g) all obligations of a type referred to in clauses (a), (b), (c), (d), (e), or (f) above

which is directly or indirectly guaranteed by such Person or which it has agreed (contingently or otherwise) to purchase or otherwise acquire or in respect of which it has otherwise assured a credit against loss, (h) any refinancings of any of the foregoing obligations, (i) any penalties or fees accrued under any of the foregoing, including those resulting from the prepayment or repayment of any of the foregoing obligations, and (j) all accrued interest payable on any of the foregoing obligations.

"Intellectual Property" shall mean any or all of the following: (a) inventions (whether patentable or not), invention disclosures, industrial designs, improvements, Trade Secrets, proprietary information, know how, technology, techniques, processes, technical data and customer lists, and all documentation relating to any of the foregoing; (b) business, technical and know-how information, non-public information, confidential information and rights to limit the use or disclosure thereof by any party; (c) works of authorship (including computer programs, in any form, including source code, object code, or executable code, and whether embodied in software, firmware or otherwise), architecture, artwork, logo images, documentation, files, records, databases and data collections, schematics, diagrams, application programming interfaces, user interfaces, algorithms, websites, verilog files, netlists, emulation and simulation reports, test vectors and hardware development tools; (d) processes, devices, prototypes, schematics, bread boards, net lists, test methodologies and hardware development tools; and (e) any similar or equivalent property of any of the foregoing.

"Intellectual Property Rights" shall mean any or all of the following and all worldwide common law and statutory rights in, arising out of, or associated therewith: (a) patents and applications therefor and all reissues, re-examinations, divisionals, renewals, extensions, provisionals, continuations and continuations-in-part thereof ("Patents"); (b) copyrights, copyrights registrations and applications therefor, and all rights in works of authorship and other rights corresponding thereto throughout the world including moral and economic rights of authors and inventors, however denominated ("Copyrights"); (c) rights in industrial designs and any registrations and applications therefor throughout the world; (d) rights in trade secrets (including, those trade secrets defined in the Uniform Trade Secrets Act and under corresponding foreign statutory and common law), business, technical and know-how information, non-public information, and confidential information and rights to limit the use or disclosure thereof by any person; including rights in databases and data collections and all rights therein ("Trade Secrets"); (e) rights in mask works, mask work registrations and applications, and all other rights corresponding thereto throughout the world; and (f) any rights similar or equivalent to any of the foregoing.

"IRS" shall mean the United States Internal Revenue Service.

"Knowledge" shall mean (i) with respect to the Company, the knowledge of Mark Manfredi and, in each case after due inquiry, and (ii) with respect to Parent, the knowledge Iain Dukes, in each case after due inquiry.

"Law" shall mean any law, statute, ordinance, rule, regulation, code, order, judgment, injunction, decree or other provision having the force or effect of law enacted, issued, promulgated, enforced or ordered by a Governmental Entity.

"Liability" shall mean, with respect to any Person, any liability or obligation of such Person of any kind, character or description, whether known or unknown, absolute or contingent, accrued or unaccrued, disputed or undisputed, liquidated or unliquidated, secured or unsecured, joint or several, due or to become due, vested or unvested, executory, determined, determinable or otherwise, and whether or not the same is required to be accrued on the financial statements of such Person.

"License Agreement" shall mean that certain License Agreement dated December 14, 2017 by and between the Company and AskAt.

"Licensed Company Intellectual Property" shall mean all Intellectual Property and Intellectual Property Rights licensed to the Company by third parties.

"Licensed Parent Intellectual Property" shall mean all Intellectual Property and Intellectual Property Rights licensed to Parent by third parties.

"Merger Shares" shall mean 6,818,179 shares of Parent Common Stock, and 33,181,818 shares of Parent Series A-1 Preferred Stock, in each case, issuable in accordance with Sections 1.6(a) and (c).

"Non-Dissenting Stockholder" shall mean each Company Stockholder that does not perfect such Company Stockholder's appraisal or similar rights under the Delaware Law and is otherwise entitled to receive consideration pursuant to Section 1.6(a) hereof.

"Owned Company Intellectual Property" shall mean (a) all Intellectual Property and Intellectual Property Rights practiced by the Company's development candidates; and (b) all other Intellectual Property and Intellectual Property Rights in which the Company has or purports to have an ownership interest of any nature, whether exclusively, jointly with another person, or otherwise.

"Owned Parent Intellectual Property" shall mean (a) all Intellectual Property and Intellectual Property Rights in Parent Products; and (b) all other Intellectual Property and Intellectual Property Rights in which Parent has or purports to have an ownership interest of any nature, whether exclusively, jointly with another person, or otherwise.

"Parent Charter Documents" shall mean Parent's certificate of incorporation and its bylaws, both as amended and in effect.

"Parent Common Stock" shall mean the common stock, $0.001 par value per share, of Parent.

"Parent Employee Plan" shall mean any plan, program, policy, practice, Contract or other arrangement providing for compensation, severance, bonus or incentive compensation, termination pay, deferred compensation, performance awards, stock or stock-related awards, retention or change of control bonus, fringe, retirement, death, disability or medical benefits or other employee benefits or remuneration of any kind, whether written, unwritten or otherwise, funded or unfunded (including each "employee benefit plan" within the meaning of Section 3(3) of ERISA) that is or has been maintained, contributed to, or required to be contributed to, by Parent or any ERISA Affiliate for the benefit of any Parent Personnel, or with respect to which the Patent or any ERISA Affiliate has or is reasonably expected to have any Liability.

"Parent Intellectual Property" shall mean any and all Licensed Parent Intellectual Property and Owned Parent Intellectual Property.

"Parent Investors' Rights Agreement" shall mean the Amended and Restated Investors' Rights Agreement dated as of the Closing Date by and between Parent and the parties thereto.

"Parent Material Adverse Effect" shall mean any change, event or effect that, individually or taken together with all other adverse changes, events or effects, is, or would reasonably be expected to be, materially adverse to (a) the business, assets (whether tangible or intangible), Liabilities, condition (financial or otherwise), operations, results of operations or capitalization of Parent and its subsidiaries, taken as a whole, or (b) Parent's ability to consummate the transactions contemplated by this Agreement or to perform its obligations under this Agreement; provided, however, none of the following shall be deemed in and of themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Parent Material Adverse Effect: (i) any adverse effect to the extent attributable to the execution of this Agreement or the announcement or pendency of the Merger; (ii) any adverse effect that results from changes affecting the industries in which Parent participates (to the extent that such changes do not disproportionately adversely affect Parent as a whole compared to other firms in the industries in which Parent participates); (iii) changes in applicable legal requirements or GAAP after the date hereof; or (iv) any adverse effect that results from any act of God, any act of terrorism, war or other hostilities, any regional, national or international calamity or any other similar event.

"Parent Options" shall mean all outstanding options, warrants and other rights to purchase or otherwise acquire Parent Common Stock.

"Parent Personnel" shall mean any current Employee, consultant or director of Parent including, without limitation, all temporary employees, leased employees or other servants or agents employed or used with respect to the operation of the business of Parent.

"Parent Restricted Stock Agreement" shall mean the Restricted Stock Agreement dated as of the Effective Time by and among Parent and the parties thereto.

"Parent Rights of First Refusal Agreement" shall mean the Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of the Effective Time by and among Parent and the parties thereto.

"Parent Stockholders" shall mean the holders of outstanding shares of capital stock of Parent as of immediately prior to the Effective Time.

"Parent Voting Agreement" shall mean the Amended and Restated Voting Agreement dated as of the Closing Date by and among Parent and the parties thereto.

"Person" shall mean an individual, corporation, partnership, limited liability company, limited liability partnership, syndicate, person, trust, association, organization or other entity, including any Governmental Entity, and including any successor, by merger or otherwise, of any of the foregoing.

"Tax" or, collectively, "Taxes" shall mean (i) any and all federal, state, local and foreign taxes, assessments and other governmental charges, duties, impositions and liabilities, including taxes based upon or measured by gross receipts, income, profits, sales, use and occupation, and value added, ad valorem, transfer, franchise, withholding, payroll, recapture, employment, abandoned and unclaimed and/or escheated property, capital stock, excise, stamp, severance, premium, environmental, profits and property taxes, as well as public imposts, fees and social security charges (including health, unemployment and pension insurance), together with all interest, penalties and additions imposed with respect to such amounts, whether disputed or not.

"Third-Party Expenses" shall mean, with respect to a given Person, obligations that (a) exist under such Person's Contracts, (b) are expressly set forth in and identifiable by reference to the text of such Contracts and (c) are not required to be identified as liabilities in a balance sheet prepared in accordance with GAAP.

"Total Fully Diluted Shares" shall mean, as of the Effective Time, the sum (without duplication) obtained by adding: (a) the aggregate number of outstanding shares of Company Common Stock; plus (b) the aggregate number of shares of Company Common Stock that would be issuable upon the conversion of the outstanding shares of Company Series A Preferred Stock; plus (c) the aggregate number of shares of Company Capital Stock underlying all outstanding Company Options (whether or not then exercisable).

"Unvested Options" means, as of the Closing Date, all outstanding unvested options to purchase shares of the Company Common Stock.

"Vested Options" means, as of the Closing Date, all outstanding vested options to purchase shares of the Company Common Stock.

"Waiver" means that certain Waiver dated as of the Closing Date by and among the Company, AskAt and other parties thereto waiving certain obligations under the Company Restricted Stock Agreement and the License Agreement.

9.2 Each of the following defined terms has the meaning given such term in the Section set forth opposite such defined term:

Term	Section
Agreement	Preamble
Certificate of Merger	Section 1.2
Certificates	Section 1.8(b)
Closing	Section 1.2
Closing Date	Section 1.2
Company	Preamble
Company Charter Documents	Section 2.1

Term	Section
Company Interested Person	Section 2.13(a)
Company Financial Statements	Section 2.7(a)
Company Schedule of Exceptions	Preamble to Article 2
Confidential Information	Section 5.12(a)
Conflict	Section 2.5
Contract(s)	Section 2.5
Current Company Balance Sheet	Section 2.7(a)
Current Parent Balance Sheet	Section 3.5(a)
Delaware Law	Section 1.1
Disclosing Party	Section 5.12(a)
Dissenting Share Payments	Section 1.7(c)
Dissenting Shares	Section 1.7(a)
Effective Time	Section 1.2
End Date	Section 7.1(b)
Exchange Ratio	Section 1.6(a)(i)
Governmental Entity	Section 2.6
Liens	Section 2.9(a)(viii)
Merger	Recitals A
Merger Sub	Preamble
Outstanding Parent Options	Section 3.7(c)
Parent	Preamble
Parent 2016 Option Plan	Section 3.7(b)
Parent Financial Statements	Section 3.5(a)
Parent Interested Person	Section 3.13(a)
Parent Restated Charter	Section 6.3(d)
Parent Schedule of Exceptions	Preamble to Article 3
Parent Series A Preferred Stock	Section 3.7(a)
Parent Series A-1 Preferred Stock	Section 3.7(a)
Personal Information	Section 2.20
Receiving Party	Section 5.12(a)
Returns	Section 2.9(a)(i)
Specified Contract	Section 2.12
Spreadsheet	Section 5.8
Stockholder Consent	Recitals G
Stockholder Joinder Agreement	Recitals G
Stockholder Representative	Preamble
Surviving Corporation	Section 1.1
Transaction Documents	Section 5.12(a)

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, Parent, Merger Sub, the Company and the Stockholder Representative have caused this Agreement to be signed, all as of the date first written above.

PARENT:

KYN THERAPEUTICS INC.,

By: /s/ Mark Manfredi
Name: Mark Manfredi
Title: President and Chief Executive Officer

MERGER SUB:

ARRYS MERGER SUB, INC

By: /s/ Mark Manfredi
Name: Mark Manfredi
Title: President

COMPANY:

ARRYS THERAPEUTICS, INC.

By: /s/ Iain Dukes
Name: Iain Dukes
Title: President and Chief Executive Officer

STOCKHOLDER REPRESENTATIVE:

ORBIMED PRIVATE INVESTMENTS VI, LP

By: /s/ Jonathan Silverstein
Name: Jonathan Silverstein
Title: Member

Schedule 1.6

Parent Stock

[***]

Schedule 6.2(e)

Third-Party Consents

[***]

Schedule 6.2(f)

Agreements to be Terminated

[***]

Schedule 6.2(g)

Agreements to be Amended

[***]

Exhibit 2.2

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AGREEMENT AND PLAN OF MERGER

BY AND AMONG

IKENA ONCOLOGY, INC.

AMI MERGER SUB, INC.

AMPLIFY MEDICINES, INC.

AND

ATLAS VENTURE FUND XI, L.P.

AS STOCKHOLDER REPRESENTATIVE

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INDEX OF EXHIBITS AND SCHEDULES

AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (this "Agreement") is made and entered into as of October 1, 2020 by and among Ikena Oncology, Inc., a Delaware corporation ("Parent"), AMI Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent ("Merger Sub"), Amplify Medicines, Inc., a Delaware corporation (such corporation and any predecessor entity thereto, the "Company"), and Atlas Venture Fund XI, L.P., a Delaware limited partnership, acting solely in its capacity as the representative of the Company Stockholders and Company SAFE Holders and only for the purposes provided herein and for no other purpose (the "Stockholder Representative"). Certain capitalized terms used but not otherwise defined herein are defined in Article 9 hereof.

RECITALS

A. Parent, Merger Sub and the Company intend to effect a merger of Merger Sub with and into the Company (the "Merger") in accordance with this Agreement and Delaware Law (as defined in Section 1.1 below). Upon consummation of the Merger, Merger Sub will cease to exist, and the Company will become a wholly-owned subsidiary of Parent.

B. The parties intend, by approving resolutions authorizing this Agreement, to adopt this Agreement as a "plan of reorganization" within the meaning of Treasury Regulation Section 1.368-2(g), and to cause the Merger to qualify as a reorganization under the provisions of Section 368(a) of the Code and the Treasury Regulations promulgated thereunder.

C. The board of directors of Parent (i) has determined that the Merger and the transactions contemplated by this Agreement are fair to, and in the best interests of, Parent and the Parent Stockholders, (ii) has deemed advisable and approved this Agreement, the Merger, and other actions contemplated by this Agreement, and (iii) has determined to recommend that the Parent Stockholders vote to approve the this Merger and the transactions contemplated hereunder.

D. The board of directors of the Company (i) has determined that the Merger and the transactions contemplated by this Agreement are fair to, and in the best interests of, the Company and the Company Stockholders, (ii) has deemed advisable and approved this Agreement, the Merger, and other actions contemplated by this Agreement, and (iii) has determined to recommend that the Company Stockholders vote to approve the this Merger and the transactions contemplated hereunder.

E. The board of directors of Merger Sub (i) has determined that the Merger and the transactions contemplated by this Agreement are fair to, and in the best interests of, Merger Sub and its sole stockholder, (ii) has deemed advisable and approved this Agreement, the Merger, and other actions contemplated by this Agreement, and (iii) has determined to recommend that the sole stockholder of Merger Sub vote to adopt this Agreement and thereby approve the Merger and the transactions contemplated hereunder.

F. Pursuant to the Merger, among other things, (i) all of the issued and outstanding shares of Company Capital Stock shall be terminated and converted into the right to receive the consideration set forth herein, (ii) all of the issued and outstanding Company SAFEs shall be terminated and converted into the right to receive the consideration set forth herein, and (iii) any other rights to acquire Company Capital Stock shall be automatically terminated for no consideration.

G. As an inducement to the willingness of Parent and the Merger Sub to enter into this Agreement (but not pursuant to any prior agreement with the Company, Merger Sub or Parent), holders of at all the outstanding shares of Company Capital Stock have indicated that they expect to deliver, following the approval and adoption of this Agreement by the board of directors of the Company and within twenty-four (24) hour(s) following execution and delivery of this Agreement, their irrevocable approval and adoption of this Agreement, the Merger and the other transactions contemplated hereby pursuant to a written consent in the form attached hereto as Exhibit A (the "Stockholder Consent") signed and dated as of the date hereof, pursuant to and in accordance with the applicable provisions of Delaware Law and the Company Charter Documents.

H. The Company, on the one hand, and Parent and the Merger Sub, on the other hand, desire to make certain representations, warranties, covenants and other agreements in connection with the Merger.

NOW, THEREFORE, in consideration of the mutual agreements, covenants and other promises set forth herein, the mutual benefits to be gained by the performance thereof, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and accepted, the parties hereby agree as follows:

ARTICLE 1

THE MERGER

1.1 The Merger. At the Effective Time and subject to and upon the terms and conditions of this Agreement, and applicable provisions of the General Corporation Law of the State of Delaware ("Delaware Law"), Merger Sub shall be merged with and into the Company, the separate corporate existence of Merger Sub shall cease, and the Company shall continue as the surviving corporation and as a wholly-owned subsidiary of Parent. The surviving corporation after the Merger is sometimes referred to herein as the "Surviving Corporation."

1.2 Effective Time. Unless this Agreement is earlier terminated pursuant to Section 7.1 hereof, the closing of the Merger (the "Closing") will take place as promptly as practicable after the execution and delivery of this Agreement by the parties hereto, but no later than two (2) Business Days following satisfaction or waiver of the conditions set forth in Article VI hereof (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the fulfillment or waiver of those conditions). The date upon which the Closing actually occurs shall be referred to herein as the "Closing Date". On the Closing Date, the parties hereto shall cause the Merger to be consummated by filing a Certificate of Merger, in substantially the form attached hereto as Exhibit C (the "Certificate of Merger"), with the Secretary of State of the State of Delaware, in accordance with the applicable provisions of Delaware Law (the time of filing of the Certificate of Merger with the Secretary of State of the State of Delaware (or such other time as agreed to in writing by Parent and the Company and specified in the Certificate of Merger) shall be referred to herein as the "Effective Time").

1.3 Effect of the Merger. At the Effective Time, the effect of the Merger shall be as provided in the applicable provisions of Delaware Law. Without limiting the generality of the foregoing, except as otherwise agreed pursuant to the terms of this Agreement, at the Effective Time, all the property, rights, privileges, powers and franchises of the Company and the Merger Sub shall vest in the Surviving Corporation, and all debts, liabilities and duties of the Company and the Merger Sub shall become the debts, liabilities and duties of the Surviving Corporation.

1.4 Certificate of Incorporation and Bylaws.

(a) Unless otherwise determined by Parent prior to the Effective Time, the certificate of incorporation of the Surviving Corporation at and as of the Effective Time shall be amended to conform to the certificate of incorporation of Merger Sub as in effect immediately prior to the Effective Time, until thereafter amended in accordance with Delaware Law and as provided in such certificate of incorporation; provided, however, that at the Effective Time, Article I of such certificate of incorporation of the Surviving Corporation shall be amended and restated in its entirety to read as follows: "The name of the corporation is Amplify Medicines, Inc."

(b) Unless otherwise determined by Parent, immediately following the Effective Time, the board of directors of the Surviving Corporation shall adopt the bylaws of Merger Sub, as in effect immediately prior to the Effective Time, to be its bylaws until amended in accordance with the provisions thereof and applicable Law. Notwithstanding the foregoing, the name of the Surviving Corporation shall still be Amplify Medicines, Inc.

1.5 Directors and Officers.

(a) Directors. Unless otherwise determined by Parent prior to the Effective Time, the directors of Merger Sub immediately prior to the Effective Time shall be the directors of the Surviving Corporation immediately after the Effective Time, each to hold the office of a director of the Surviving Corporation in accordance with the provisions of Delaware Law, the certificate of incorporation and bylaws of the Surviving Corporation until their successors are duly elected and qualified, or until their earlier resignation or removal.

(b) Officers. Unless otherwise determined by Parent prior to the Effective Time, the officers of Merger Sub immediately prior to the Effective Time shall be the officers of the Surviving Corporation immediately after the Effective Time, each to hold office in accordance with the provisions of the bylaws of the Surviving Corporation.

1.6 Effect of Merger on the Securities of the Company.

(a) Effect on Capital Stock of the Company. At and as of the Effective Time, by virtue of the Merger and without any action on the part of Merger Sub, the Company, the holders of shares of Company Capital Stock, the holders of Company SAFEs or any other Person, upon the terms and subject to the conditions set forth in this Section 1.6:

(i) Conversion of Company SAFEs. Each outstanding Company SAFE shall be cancelled and extinguished and each holder thereof shall cease to have any rights with respect thereto, other than the right to receive a number of shares of Parent Series A-2 Preferred Stock equal to the product of (A) the investment amount under the applicable Company SAFE, *multiplied by* (B) 1.2097068 (with the aggregate number of shares of Parent Series A-2 Preferred Stock rounded to a whole number of shares on a holder-by-holder basis) as set forth on Schedule 1.6 hereto (the "SAFE Consideration").

(ii) Conversion of Company Common Stock. Subject to Section 1.6(b), each outstanding share of Company Common Stock (other than any Dissenting Shares) shall be cancelled and extinguished and be converted automatically into the right to receive (following the surrender of the certificate representing such share of Company Common Stock in accordance with Section 1.8 or delivery of an affidavit of loss and indemnity as provided in Section 1.10) 1.2097068 shares of Parent Common Stock (with the aggregate number of shares of Parent Common Stock rounded to a whole number of shares on a holder-by-holder basis) as set forth on Schedule 1.6 hereto (the "Common Consideration"). Notwithstanding the foregoing, each outstanding Company Common Stock that is subject to time-based or other vesting or lapse restrictions, including, without limitation, under a Company Restricted Stock Agreement, shall, to the extent not vested, be deemed vested immediately following the Effective Time as to the same percentage of the total number of shares subject thereto as it was vested immediately prior to the Effective Time; it being acknowledged and agreed that the vesting schedule shall be consistent with the existing Company Restricted Stock Agreement to which such Company Common Stock are subject, including, without limitation acceleration of vesting as a result of the Merger. As soon as reasonably practicable after the Effective Time, Parent shall deliver to such holder of such restricted Company Common Stock a new restricted stock agreement on Parent's standard form restricted stock agreement reflecting the vesting schedule.

(b) Certain Matters. No share of Company Capital Stock (other than Dissenting Shares) or Company SAFEs shall be deemed to be outstanding or to have any rights other than those set forth in Section 1.6 hereof after the Effective Time. Parent shall be entitled to rely on the Spreadsheet in making distributions to Company Stockholders pursuant to Section 1.8(b).

(c) Withholding Taxes. The Company, Parent and the Surviving Corporation shall be entitled to deduct and withhold from any consideration payable or otherwise deliverable pursuant to this Agreement to any holder or former holder of Company Capital Stock such amounts as may be required to be deducted or withheld therefrom under the Code, or any provision of state, local or foreign Tax Law. To the extent that amounts are so deducted or withheld, such amounts shall be treated for all purposes of this Agreement as having been paid to the Persons in respect of whom such deduction and withholding were made.

(d) Capital Stock of Merger Sub. Each share of common stock of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one (1) validly issued, fully paid and nonassessable share of common stock of the Surviving Corporation. Each stock certificate of Merger Sub evidencing ownership of any such shares of common stock of Merger Sub shall thereafter evidence ownership of such shares of common stock of the Surviving Corporation.

1.7 Dissenting Shares.

(a) Notwithstanding any other provisions of this Agreement to the contrary, any shares of Company Capital Stock held by a holder who has properly demanded and perfected appraisal rights for such holder's shares under Delaware Law and who, as of the Effective Time, has not effectively withdrawn or lost such holder's appraisal rights under Delaware Law ("Dissenting Shares") shall not be converted into or represent a right to receive the consideration for Company Capital Stock set forth in Section 1.6(a) hereof, but the holder thereof shall only be entitled to such rights as are provided by Delaware Law. Parent shall be entitled to retain any such consideration not paid on account of such Dissenting Shares pending resolution of the claims of the holders thereof, and the Non-Dissenting Stockholders shall not be entitled to any portion thereof.

(b) Notwithstanding the provisions of Section 1.7(a) hereof, if any holder of Dissenting Shares shall effectively withdraw or lose (through failure to perfect or otherwise) such holder's appraisal rights under Delaware Law, then, as of the later of the Effective Time and the occurrence of such event, such holder's shares shall automatically be converted into and represent only the right to receive the consideration for Company Capital Stock, as applicable, set forth in Section 1.6(a) hereof, without interest thereon, and subject to the provisions of Section 1.8, upon surrender of the certificate representing such shares.

(c) The Company shall give Parent (i) prompt notice of any written notice of intent to demand appraisal under Delaware Law or other applicable Law or demand for appraisal under Delaware Law or other applicable Law received by the Company, and (ii) the opportunity to direct all negotiations and proceedings with respect to such notices or demands. The Company shall not, except with the prior written consent of Parent, voluntarily make any payment with respect to any such notices or demands or offer to settle or settle any such notices or demands without Parent's prior written consent.

1.8 Mechanics of Exchange.

(a) Parent to Provide Shares. From and after the Effective Time, Parent shall have available certificates evidencing the Merger Shares issuable pursuant to Section 1.6(a).

(b) Exchange Procedures. Following the Closing, each Company Stockholder shall surrender the certificates representing shares of Company Capital Stock (the "Certificates") (or an affidavit of loss and indemnity as provided in Section 1.10) in exchange for certificates representing the Merger Shares issuable to such Company Stockholder pursuant to Section 1.6(a). Upon surrender of a Certificate for cancellation (or an affidavit of loss and indemnity as provided in Section 1.10) to Parent, the holder of such Certificate shall be entitled to receive in exchange therefor a certificate or certificates representing the number of Merger Shares to which such holder is then entitled in accordance with Section 1.6(a), and the Certificate so surrendered shall forthwith be canceled. Until so surrendered, each outstanding Certificate will be deemed from and after the Effective Time, for all corporate purposes, to evidence the ownership of the number of Merger Shares into which such shares of Company Capital Stock shall have been so converted, subject to the terms and conditions hereof.

(c) Transfers of Ownership. From and after the Effective Time, there shall be no transfers on the stock transfer books of the Company of Company Capital Stock that was outstanding prior to the Effective Time.

(d) No Liability. Notwithstanding anything to the contrary in this Section 1.8, neither the Surviving Corporation nor any party hereto shall be liable to a holder of shares of Company Capital Stock or any other Person for any amount properly paid to a public official pursuant to any applicable abandoned property, escheat or similar Law. Any merger consideration or other amounts remaining unclaimed by Company Stockholders three (3) years after the Effective Time (or such earlier date immediately prior to such time as such amounts would otherwise escheat to or become property of any Governmental Entity) shall, to the extent permitted by applicable Law, become the property of Parent free and clear of any Liens.

(e) Transfers of Ownership. If any certificate for Merger Shares is to be issued in a name other than that in which the Certificate surrendered in exchange therefor is registered, it will be a condition of the issuance thereof that the Certificate so surrendered will be properly endorsed and otherwise in proper form for transfer and that the person requesting such exchange will have paid to Parent or any agent designated by it any transfer or other taxes required by reason of the issuance of a certificate for Merger Shares in any name other than that of the registered holder of the Certificate surrendered, or established to the satisfaction of Parent or any agent designated by it that such tax has been paid or is not payable. Any such issuance in a name other than that in which the Certificate surrendered in exchange therefor is registered shall only be made in compliance with applicable federal, state and foreign Laws.

1.9 No Further Ownership Rights. The Merger Shares payable for shares of Company Capital Stock and for Company SAFEs, respectively, in accordance with the terms hereof shall be deemed to be in full satisfaction of all rights pertaining to such shares of Company Capital Stock and Company SAFEs, respectively. After the Effective Time, each Certificate presented to the Surviving Corporation for any reason shall be cancelled and exchanged as provided in this Article 1. No interest shall accrue or be paid on any consideration payable upon the surrender of a Certificate which immediately before the Effective Time represented outstanding (or immediately exercisable for) shares of Company Capital Stock.

1.10 Lost, Stolen or Destroyed Instruments. In the event any Certificates evidencing shares of Company Capital Stock shall have been lost, stolen or destroyed, Parent may, in its discretion and as a condition precedent to the payment of any consideration with respect to the shares of Company Capital Stock previously represented by such Certificates, require the owner of such lost, stolen or destroyed Certificates to provide an appropriate affidavit with respect to such Certificate.

1.11 Taking of Necessary Action; Further Action. If at any time after the Effective Time, any further action is necessary or desirable to carry out the purposes of this Agreement and to vest the Surviving Corporation with full right, title and possession to all assets, property, rights, privileges, powers and franchises of the Company, then the officers and directors of the Surviving Corporation are hereby authorized, empowered and directed in the name of and on behalf of the Company to execute and deliver any and all things and to take such action as is necessary or desirable to vest or to perfect or confirm title to such property or rights in the Surviving Corporation, and otherwise to carry out the purposes and provisions of this Agreement.

ARTICLE 2

REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

As of the date hereof and as of the Closing Date, the Company hereby represents and warrants to Parent and the Merger Sub, subject only to such exceptions as are specifically disclosed in the Schedule of Exceptions (each of which disclosures, in order to be effective, shall indicate the Section and, if applicable, the Subsection of this Article 2 to which it relates, unless and only to the extent the relevance to other representations and warranties is readily apparent from the actual text of the disclosures without independent knowledge on the part of the reader regarding the disclosures) delivered by the Company to Parent (the "Company Schedule of Exceptions") concurrently with the execution and delivery of this Agreement as to the matters specified in this Article 2:

2.1 Organization of the Company. The Company is a corporation duly organized, validly existing and in good standing under Delaware Law. The Company has the corporate power to own its properties and to carry on its business as currently conducted. The Company is duly qualified or licensed to do business and in good standing as a foreign corporation (if applicable) in each jurisdiction in which it conducts business, except in those jurisdictions where the failure to be so qualified would not have a Company Material Adverse Effect. The Company has made available to Parent (i) a true and correct copy of its certificate of incorporation and bylaws (collectively, the "Company Charter Documents"), and (ii) a true and correct copy of the minutes of meetings and other actions of the board of directors (or other similar body), including any committees of the board of directors (or other similar body), and the stockholders of the Company in the possession of the Company. Section 2.1 of the Company Schedule of Exceptions lists the directors and officers of the Company. The operations now being conducted by the Company are not now and have never been conducted by the Company under any other name. The Company is not in violation of any of the provisions of the Company Charter Documents.

2.2 Company Capital Structure.

(a) As of the date hereof, the authorized capital stock of the Company consists of 5,000,000 shares of Company Common Stock, par value $0.0001 per share, 2,572,000 shares of which are issued and outstanding as of the date of this Agreement and owned of record by the holders and in the amounts set forth on Section 2.2(a) of the Company Schedule of Exceptions. All outstanding shares of Company Capital Stock and all Company SAFEs are duly authorized, validly issued, fully paid and non-assessable and not subject to preemptive rights created by statute, the Company Charter Documents, or any Contract to which the Company is a party or by which it is bound, and have been issued, in all material respects, in compliance with applicable federal, state and foreign Laws. The Company has not repurchased any shares of Company

Capital Stock except in compliance in all material respects with all applicable federal, state, foreign and local Laws, including federal, state and foreign securities Laws, and any Contracts applicable thereto. There are no declared or accrued but unpaid dividends with respect to any shares of Company Capital Stock or any Company SAFEs. Other than as disclosed in the Schedules referred to in this Section 2.2(a), the Company has no capital stock or convertible securities authorized, issued or outstanding. Other than as disclosed in the Schedules referred to in this Section 2.2(a), no vesting provisions applicable to any shares of Company Common Stock or to any other rights to purchase Company Capital Stock will accelerate as a result of the transactions contemplated by this Agreement.

(b) Section 2.2(b) the Company Schedule of Exceptions sets forth, as of the date hereof, in respect of each Company SAFE, (i) the name of the record holder of such Company SAFE, (ii) the date of grant or issuance of such Company SAFE, and (iii) the aggregate principal for such Company SAFE.

(c) The Company has never adopted or maintained any stock option plan or other plan providing for equity compensation of any Person. The Company has never granted any options to purchase Company Capital Stock or any other type of stock award.

(d) Except for the Company Capital Stock identified in Section 2.2(a) of the Company Schedule of Exceptions and the conversion rights of the Company SAFEs, there are no options, warrants, calls, rights, resolutions, commitments or Contracts of any character, written or oral, to which the Company is a party or by which it is bound, obligating the Company to issue, deliver, sell, repurchase or redeem, or cause to be issued, delivered, sold, repurchased or redeemed, any shares of the capital stock of the Company or obligating the Company to grant, extend, accelerate the vesting of, change the price of, otherwise amend or enter into any such option, warrant, call, right, commitment or Contract. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to give rise to or provide a reasonable basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of Company Capital Stock or other securities of the Company. There are no outstanding or authorized stock appreciation, stock unit, phantom stock, profit participation or other similar rights with respect to the Company. As a result of the Merger, Parent will be the sole record and beneficial holder of all issued and outstanding shares of Company Capital Stock and all rights to acquire or receive any shares of Company Capital Stock. Except for that certain Founders Agreement listed on Schedule 6.2(f) of the Company Schedule of Exceptions, the Company is not a party to, and as of the date hereof, there are no other voting trusts, proxies, or other Contracts or understandings with respect to the voting stock of the Company.

2.3 No Subsidiaries. The Company does not have, and has never had, any Subsidiaries and does not otherwise own any shares of capital stock or any interest in, or control, directly or indirectly, any other corporation, partnership, association, joint venture or other business entity or have any ongoing obligation to purchase any shares of capital stock with respect thereto.

2.4 Authority.

(a) The Company has all requisite corporate power and authority to enter into this Agreement, subject to the adoption of this Agreement by the Company Stockholders under Delaware Law and the Company Charter Documents, and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of the Company, and, subject to the adoption of this Agreement by the Company Stockholders under Delaware Law and the Company Charter Documents prior to the Effective Time, no further action is required on the part of the Company to authorize this Agreement and the transactions contemplated hereby. This Agreement has been duly executed and delivered by the Company and, assuming the due authorization, execution and delivery by the other parties hereto, constitutes the valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as such enforceability may be subject to the Laws of general application relating to bankruptcy, insolvency and the relief of debtors and rules of Law governing specific performance, injunctive relief or other equitable remedies.

(b) The board of directors of the Company has unanimously (i) adopted the plan of merger set forth in this Agreement and approved this Agreement, the Merger and the other transactions contemplated by this Agreement; (ii) declared that this Agreement, the Merger and the other transactions contemplated by this Agreement are advisable and in the best interests of the Company and the Company Stockholders; and (iii) recommended adoption and approval of this Agreement, the Merger and the other transactions contemplated by this Agreement to the Company Stockholders.

2.5 No Conflict. The execution and delivery by the Company of this Agreement, and the consummation of the transactions contemplated hereby, will not conflict with or result in any violation of or default under (with or without notice or lapse of time, or both) or give rise to a right of termination, cancellation, modification or acceleration of any obligation, payment of any benefit, or loss of any benefit (any such event, a "Conflict") under: (a) any provision of the Company Charter Documents; (b) any written or oral mortgage, indenture, lease, contract, covenant or other agreement, arrangement, instrument or commitment, permit, concession, franchise or license (each a "Contract" and collectively the "Contracts") to which the Company or any of its properties or assets (whether tangible or intangible) is a party, bound by or, as the case may be, subject; or (c) any Law applicable to the Company or any of its properties (whether tangible or intangible) or assets, except, in case of clauses (b) and (c) where such Conflict would not reasonably be expected to have a Company Material Adverse Effect. As a result of the consummation of the transactions contemplated by this Agreement, the Surviving Corporation will not be prohibited from exercising any of its rights under any Contract (other than any Contract identified on Schedule 6.2(f) required to be terminated hereby), and none of Parent, the Surviving Corporation or any of their respective Subsidiaries will be required to pay any additional amounts or consideration other than ongoing fees, royalties or payments, which the Company would otherwise be required to pay pursuant to the terms of such Contracts had the transactions contemplated by this Agreement not occurred.

2.6 Governmental Consents. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with any court, administrative agency or commission or other federal, state, county, local or foreign governmental authority, instrumentality, agency or commission (each, a "Governmental Entity"), is required by or with respect to the Company in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby, except for (a) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings which, if not obtained or made, would not have a Company Material Adverse Effect, and (b) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware.

2.7 Company Financial Statements.

(a) Section 2.7(a) of the Company Schedule of Exceptions sets forth the Company's unaudited consolidated balance sheet as of June 30, 2020, and the related unaudited consolidated statements of income, cash flows and stockholders' equity for the six month period then ended (all of the foregoing financial statements of the Company and any notes thereto are hereinafter collectively referred to as the "Company Financial Statements"). The Company Financial Statements are correct in all material respects. The Company Financial Statements present fairly the Company's financial condition, operating results and cash flows as of the dates, and for the periods, indicated therein. The Company's unaudited balance sheet as of June 30, 2020, is referred to hereinafter as the "Current Company Balance Sheet." As of the date of this Agreement, the Company has available cash in excess of $3,708,568.14.

(b) The Company has no Liability except liabilities that (a) have been reflected in the Current Company Balance Sheet (to the extent of such reflection) or disclosed in Section 2.7(b) of the Company Schedule of Exceptions, (b) have arisen in the ordinary course of business consistent with past practices since the date of the Current Company Balance Sheet and are not material to the Company, (c) are Third-Party Expenses or (d) are executory obligations arising in the ordinary course of business under Contracts to which the Company is a party (and not as a result of the breach of any such Contract or otherwise). Section 2.7(b) of the Company Schedule of Exceptions sets forth a complete and accurate list of all Indebtedness of the Company incurred by the Company as of the date of this Agreement.

2.8 No Changes. Since the date of the Current Company Balance Sheet, and except as expressly permitted by Section 4.1 hereof or required by this Agreement following the date of this Agreement, there has or have not been, occurred or arisen any Company Material Adverse Effect, and no event has occurred or circumstance has arisen that, in combination with any other events or circumstances, will or would reasonably be expected to have or result in a Company Material Adverse Effect.

2.9 Company Tax Matters.

(a) Tax Returns and Audits.

(i) The Company has prepared and timely filed all material federal, state, local and foreign returns, statements, estimates, information statements, documents, forms and reports in respect of Taxes ("Returns") required to be filed by it, and such Returns are true and correct in all material respects and have been completed in all material respects in accordance with applicable Law. The Company has paid all Taxes it is required to pay (whether or not shown on any Return).

(ii) The Company has complied in all material respects with all applicable Laws relating to the payment, reporting and withholding of Taxes (including, without limitation, withholding of Taxes pursuant to Sections 1441, 1442, 1445, 1446, 1471, 1472, 1473, and 1474 of the Code or similar provisions under any federal, state, local or foreign Law), has, within the time and in the manner prescribed by Law, withheld from employee wages or consulting compensation and timely paid over to the proper governmental authorities (or is properly holding for such timely payment) all amounts required to be so withheld and paid over under all applicable Laws, including federal and state income Taxes, state, local and foreign sales, use or other similar Taxes, Federal Insurance Contribution Act, Medicare, relevant state income and employment Tax withholding Laws, and has timely filed all withholding and sales or use Tax Returns, for all periods.

(iii) The Company has never been delinquent in the payment of any Tax, nor is there any Tax deficiency outstanding, assessed or proposed against the Company, nor has the Company executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any Tax.

(iv) The Company has disclosed on its federal income Tax Returns all positions that could give rise to a substantial understatement penalty under Section 6662 of the Code.

(v) No audit or other examination of any Return of the Company is presently in progress, nor has the Company been notified by any Tax authority (orally or in writing, formally or informally) of any threat or plan to request such an audit or other examination.

(vi) The Company has no liabilities for unpaid federal, state, local or foreign Taxes that have not been accrued or reserved on the Current Company Balance Sheet, whether asserted or unasserted, contingent or otherwise, and the Company has incurred no Liability for Taxes since the date of the Current Company Balance Sheet other than in the ordinary course of business.

(vii) The Company has made available to Parent copies of all Returns for the Company filed for all periods since its inception, together with all related workpapers and analysis created by or on behalf of the Company.

(viii) There are (and, immediately following the Effective Time, there will be) no liens, pledges, charges, claims, restrictions on transfer, mortgages, security interests or other encumbrances of any sort (collectively, "Liens") on the assets of the Company relating to or attributable to Taxes other than customary Liens for Taxes not yet due and payable.

(ix) The Company has never been, at any time, a "United States Real Property Holding Corporation" within the meaning of Section 897(c)(2) of the Code.

(x) There are no Tax rulings, requests for rulings, or "closing agreements" (as described in Section 7121 of the Code or any corresponding provision of state, local or foreign Tax Law) relating to the Company that could affect the Company's Liability for Taxes for any period after the Closing Date. The Company will not be required to include any item of income in, or exclude any item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing as a result of any: (i) adjustment pursuant to Section 481 of the Code (or any corresponding or similar provision of federal, state, local or foreign Tax Law); (ii) installment sale or open transaction disposition made on or prior to the Closing; (iii) prepaid amount received on or prior to the Closing; (iv) intercompany transaction or any excess loss account described in Treasury Regulations under Section 1502 of the Code; (v) election with respect to income from the discharge of indebtedness under Section 108(i) of the Code; or (vi) any similar election, action or agreement that would have the effect of deferring Liability for Taxes of the Company from any period ending on or before the Closing Date to any period ending after the Closing Date.

(xi) With respect to any stock or other property transferred in connection with the performance of services for the Company, a valid Section 83(b) election in accordance with the requirements of the Code has been made, copies of which have been made available to Parent.

(xii) The Company has never constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock qualifying for tax-free treatment under Section 355 of the Code.

(xiii) Except as set forth in Section 2.9(a)(xiii) of the Company Schedule of Exceptions, the Company is not party to any Contract, Company Employee Plan, Employee Agreement or other arrangement that is in any part a "nonqualified deferred compensation plan" subject to Section 409A of the Code and the regulations and other guidance promulgated thereunder. The Company is not a party to, or otherwise obligated under, any Contract, Company Employee Plan, Employee Agreement or other arrangement that provides for a gross up of any Tax imposed by Section 409A of the Code. Each such nonqualified deferred compensation plan has been operated in compliance in all material respects in both form and in operation with Section 409A of the Code.

2.10 Property. The property and assets that the Company owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets. With respect to the property and assets it leases, the Company is in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances other than those of the lessors of such property or assets. The Company does not own any real property.

2.11 Company Intellectual Property. The Company owns or possesses sufficient legal rights to all Company Intellectual Property used by it as of the date of this Agreement and, as so used, without any known conflict with, or known infringement of, the rights of others. To the Company's Knowledge, no product or service marketed or sold (or proposed to be marketed or sold) by the Company violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than as set forth on Section 2.11 of the Company Schedule of Exceptions and with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options,

licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Company Intellectual Property, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the Patents, trademarks, service marks, trade names, Copyrights, Trade Secrets, licenses, information, proprietary rights and processes of any other Person. The Company has not received any communications alleging that the Company has violated, or by conducting its business, would violate any of the Patents, trademarks, service marks, tradenames, Copyrights, Trade Secrets, mask works or other proprietary rights or processes of any other Person. The Company has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with the Company's business. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by the Company. Each employee, consultant and applicable service provider has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted. Section 2.11 of the Company Schedule of Exceptions lists all Patents that are Company Intellectual Property as of the date of this Agreement. For purposes of this Section 2.11, the Company shall be deemed to have knowledge of a patent right if the Company has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent Laws.

2.12 Contracts. Except as set forth on Section 2.12 of the Company Schedule of Exceptions, the Company is not a party to, nor is it bound by:

(a) (i) any employment or consulting Contract with an employee or individual consultant or salesperson, or consulting or sales Contract with a firm or other organization to provide services to the Company, (ii) any Contract to grant any severance or termination pay (in cash or otherwise) to any employee, individual consultant or any contractor, or (iii) any consulting or sales Contract with a firm or other organization;

(b) any Contract or plan, including any stock option plan, stock appreciation rights plan, phantom stock plan or stock purchase plan, any of the benefits of which will be increased, or the vesting of benefits of which will be accelerated, by the occurrence of any of the transactions contemplated by this Agreement, or the value of any of the benefits of which will be calculated on the basis of any of the transactions contemplated by this Agreement;

(c) any Contract relating to the disposition or acquisition of assets or any interest in any business enterprise outside the ordinary course of the Company's businesses (including any Liability related to or arising out of any acquisition or other business combination such as any earn-out, performance, bonus or other contingent payment arrangement or arising out of any related indemnification provisions);

(d) any mortgage, indenture, guarantee, loan or credit agreement, security agreement or other Contract relating to the borrowing of money or extension of credit;

(e) any Contract containing a most-favored nations provision or any similar provision requiring that a third-party be offered terms or concessions at least as favorable as those offered to one or more other parties;

(f) any other agreement that was entered into outside the ordinary course of business or as inconsistent with the Company's past practices or which limits or impairs the ability of the Company to conduct its business or compete with any Person; or

(g) any Contract under which the Company's entering into this Agreement or the consummation of the Merger or the transactions contemplated thereby shall give rise to, or trigger the application of, any rights of any third-party or any obligations of the Company that would come into effect upon the consummation of the Merger.

The Company is in compliance in all material respects with and has not materially breached, violated or defaulted under, or received notice that it has materially breached, violated or defaulted under, any of the terms or conditions of any Contract to which it is a party or by which it is bound, nor to the Company's Knowledge has any event occurred or circumstance or condition come to exist that would reasonably be expected to constitute such a material breach, violation or default with the lapse of time, giving of notice or both. Section 2.12 of the Company Schedule of Exceptions sets forth a complete and accurate list of all Contracts to which the Company is subject as of the date of this Agreement. Each Contract of the type described in, or required to be disclosed under, Sections 2.11 or 2.12 hereof (each, a "Specified Contract") is in full force and effect, and the Company is not in material default thereunder, nor to the Knowledge of the Company is any other party to any such Contract in material default thereunder.

2.13 Company Interested Person Transactions.

(a) No officer or director of the Company or, to the Knowledge of the Company, holder of more than five percent (5%) of the outstanding shares of Company Capital Stock (nor any ancestor, sibling, descendant or spouse of any of such Persons, or any trust, partnership, corporation or other Person in which any of such Persons has or has had an interest), (a "Company Interested Person"), has or has had, directly or indirectly, (i) an economic interest in any entity which furnished or sold, or furnishes or sells, services, products or technology that the Company furnishes or sells, or proposes to furnish or sell, or (ii) any economic interest in any entity that purchases from or sells or furnishes to the Company, any services, products or technology, or (iii) a beneficial interest in any Contract to which the Company is a party, except in the case of clause (iii) in any such Person's capacity as an officer, director or stockholder of the Company; provided, however, that ownership of no more than five percent (5%) of the outstanding voting stock of a private corporation, or one percent (1%) of the outstanding voting stock of a publicly traded corporation, shall not be deemed to be an "interest in any entity" for purposes of this Section 2.13.

(b) All transactions pursuant to which any officer, director or stockholder of the Company or any Company Interested Person has purchased any services, products or technology from, or sold or furnished any services, products or technology to, the Company, have been on an arms' length basis on terms no less favorable to the Company than would be available from an unaffiliated party.

2.14 Governmental Authorization. Each material consent, license, permit, grant or other authorization (i) pursuant to which the Company currently operates or holds any interest in any of its properties, or (ii) which is required for the operation of the Company's business as currently conducted has been issued or granted to the Company and is in full force and effect and is not and will not be affected by the transactions contemplated hereby.

2.15 Litigation. There is no action, suit, claim or proceeding of any nature pending or, to the Knowledge of the Company, threatened or reasonably anticipated against or involving the Company, any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such. There is no investigation, inquiry or other proceeding pending or, to the Knowledge of the Company, threatened or reasonably anticipated against or involving the Company, any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such by or before any Governmental Entity. No Governmental Entity has provided the Company with written notice challenging or questioning the legal right of the Company to conduct its operations as conducted at that time or as presently conducted.

2.16 Minute Books. To the Company's Knowledge, the minutes of the proceedings of meetings and written actions of the board of directors (or similar body) and the stockholders of the Company made available to Parent are the only minutes (or actions by written consent) of the Company as of the date of this Agreement and contain accurate summaries of all meetings and actions by written consent of the board of directors (or similar body) (or committees thereof) of the Company and of all meetings and actions by written consent of the stockholders of the Company, since the time of incorporation of the Company.

2.17 Fees and Expenses. The Company has not incurred, nor will it incur, directly or indirectly, any Liability for investment banking fees or for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby.

2.18 Employee Benefit Plans and Compensation.

(a) Schedule. Section 2.18(a)(1) of the Company Schedule of Exceptions contains an accurate and complete list of each Company Employee Plan and each Employee Agreement (whether or under a Company Employee Plan). The Company has not made any plan or commitment to establish, adopt or enter into any new Company Employee Plan or Employee Agreement, or to modify any Company Employee Plan or Employee Agreement (except to the extent required by Law). Section 2.18(a)(2) of the Company Schedule of Exceptions sets forth a table listing the name and salary of each exempt employee and/or consultant of the Company.

(b) Documents. The Company has made available to Parent, to the extent existing, (i) correct and complete copies of all documents embodying each Company Employee Plan and each Employee Agreement, including all amendments, summary plan descriptions, and trust documents, (ii) the three (3) most recent annual reports (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA for any Company

Employee Plan, (iii) if any Company Employee Plan is funded, the most recent annual and periodic accounting of such Company Employee Plan's assets, (iv) all material written Contracts relating to each Company Employee Plan, including administrative service agreements, trust agreements and group insurance contracts, (v) all material communications relating to any established or proposed Company Employee Plan that relates to any material amendments, terminations, increases or decreases in benefits, acceleration of payments or vesting schedules or other events that would result in any Liability to the Company or its ERISA Affiliates, (vi) all material correspondence to or from any Governmental Entity relating to any Company Employee Plan, (vii) all policies pertaining to fiduciary liability insurance covering the fiduciaries for each Company Employee Plan, (viii) discrimination test results for each Company Employee Plan for the three (3) most recent plan years, (ix) the most recent IRS determination letter (or opinion letter in the case of a prototype plan) issued with respect to each Company Employee Plan, and (x) visa and work permit information with respect to current Company Personnel.

(c) Employee Plan Compliance. Each Company Employee Plan has been established and maintained in accordance with its terms and in material compliance with all applicable Laws. The Company has performed all material obligations required to be performed by it under each Company Employee Plan. Each Company Employee Plan intended to be qualified under Section 401(a) of the Code has obtained a favorable determination letter from the IRS or is entitled to rely on an opinion letter issued to the Company Employee Plan's prototype sponsor. There are no actions, suits or claims pending or, to the Knowledge of the Company, threatened or reasonably anticipated (other than routine claims for benefits) against any Company Employee Plan or against the assets of any Company Employee Plan. Each Company Employee Plan that is not an Employee Agreement can be amended, terminated or otherwise discontinued prior to the Effective Time in accordance with its terms, without Liability to Parent or the Company (other than ordinary administration expenses). There are no audits, inquiries or proceedings pending or to the Knowledge of the Company, threatened, or reasonably anticipated, by the IRS, United States Department of Labor or any other Governmental Entity with respect to any Company Employee Plan. The Company has made all contributions and other payments required by and due under the terms of each Company Employee Plan.

(d) No Pension Plans or Welfare Plans. Neither the Company nor any of its ERISA Affiliates has ever maintained, established, sponsored, participated in, or contributed to, and does not otherwise have any Liability with respect to or under any (i) employee benefit plan subject to Section 412 of the Code or Title IV of ERISA (ii) "multiemployer plan" within the meaning of Section (3)(37) of ERISA, (iii) "multiple employer plans" for purposes of ERISA, or (iv) a "funded welfare plan" within the meaning of Section 419 of the Code. No Company Employee Plan provides health or disability benefits that are not fully insured through an insurance contract.

2.19 Compliance with Laws. The Company has complied in all material respects with, is not in material violation of, and has not received any notices of violation with respect to, foreign, federal, state or local Laws. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to (with or without notice or lapse of time) constitute or result in a material violation by the Company of, or a failure on the part of the Company to comply in any material respect with, any applicable Law.

2.20 Data Privacy. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any personally identifiable information from any individuals, including, without limitation, any customers, prospective customers, employees and/or other third parties (collectively "Personal Information"), the Company is and has been in compliance with all applicable Laws in all relevant jurisdictions, the Company's privacy policies and the requirements of any contract or codes of conduct to which the Company is a party. The Company has commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. The Company is and has been in compliance in all material respects with all Laws relating to data loss, theft and breach of security notification obligations.

ARTICLE 3

REPRESENTATIONS AND WARRANTIES OF PARENT AND THE MERGER SUB.

As of the date hereof and as of the Closing Date, Parent and the Merger Sub hereby represent and warrant to the Company, subject only to such exceptions as are specifically disclosed in the Schedule of Exceptions (each of which disclosures, in order to be effective, shall indicate the Section and, if applicable, the Subsection of this Article 3 to which it relates, unless and only to the extent the relevance to other representations and warranties is readily apparent from the actual text of the disclosures without independent knowledge on the part of the reader regarding the disclosures) delivered by Parent and the Merger Sub to the Company (the "Parent Schedule of Exceptions") concurrently with the execution and delivery of this Agreement as to the matters specified in this Article 3:

3.1 Organization and Standing. Parent and the Merger Sub are each corporations duly organized, validly existing and in good standing under Delaware Law. Each of Parent and the Merger Sub has the corporate power to own its properties and to carry on its business as currently being conducted. Each of Parent and the Merger Sub is duly qualified or licensed to do business and in good standing as a foreign corporation in each jurisdiction in which it conducts business, except in those jurisdictions where the failure to be so qualified would not have a Parent Material Adverse Effect. Parent has delivered to the Company a true and correct copy of the Parent Restated Charter and bylaws. Immediately prior to the Effective Time, the Parent Restated Charter will have been duly filed with the Secretary of State of the State of Delaware and be in full force and effect. Parent is not in violation of any of the provisions of the Parent Charter Documents.

3.2 Authority.

(a) Each of Parent and the Merger Sub has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Parent and the Merger Sub, and no further action is required on the part of Parent or Merger Sub to authorize this Agreement and the transactions contemplated hereby. This Agreement has been duly executed and delivered by Parent and the Merger Sub and constitutes the valid and binding obligations of Parent and the Merger Sub, enforceable against Parent and the Merger Sub in accordance with its terms, except as such enforceability may be subject to the Laws of general application relating to bankruptcy, insolvency and the relief of debtors and rules of Law governing specific performance, injunctive relief or other equitable remedies.

(b) The boards of directors of Parent and the Merger Sub have each unanimously (i) adopted the plan of merger set forth in this Agreement and approved this Agreement, the Merger and the other transactions contemplated by this Agreement; (ii) declared that this Agreement, the Merger and the other transactions contemplated by this Agreement are advisable and in the best interests of Parent, the Parent Stockholders, Merger Sub and the Merger Sub's sole stockholder; and (iii) recommended adoption and approval of this Agreement, the Merger and the other transactions contemplated by this Agreement to the Parent Stockholders and the Merger Sub's sole stockholder.

3.3 No Conflict. The execution and delivery of this Agreement by Parent and the Merger Sub does not, and the consummation of the transactions contemplated hereby will not, conflict with, or result in any violation of, or default under (with or without notice or lapse of time, or both), or give rise to a Conflict under (a) any provision of the certificate of incorporation and bylaws of Parent or Merger Sub, (b) any Law applicable to Parent or Merger Sub or their respective properties or assets (whether tangible or intangible) or (c) any Contract to which Parent or Merger Sub is a party, except in the case of clauses (b) and (c) where such Conflict would not reasonably be expected to have a Parent Material Adverse Effect or will not have a material adverse effect on the legality, validity or enforceability of this Agreement.

3.4 Consents. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with, any Governmental Entity is required by or with respect to Parent or Merger Sub in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby, except for (a) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings which, if not obtained or made, would not have a Parent Material Adverse Effect, (b) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware, and (c) those required to be made with, given to or obtained from any Governmental Entity in connection with the Merger under applicable antitrust Laws.

3.5 Parent Financial Statements.

(a) Section 3.5(a) of the Parent Schedule of Exceptions sets forth Parent's unaudited consolidated balance sheet as of June 30, 2020, and the related unaudited consolidated statements of income, cash flows and stockholders' equity for the six (6) month period then ended (all of the foregoing financial statements of Parent and any notes thereto are hereinafter collectively referred to as the "Parent Financial Statements"). The Parent Financial Statements are correct in all material respects and have been prepared in accordance with GAAP consistently applied on a basis consistent throughout the periods indicated and consistent with each other (except that the unaudited Parent Financial Statements do not contain footnotes thereto). The Parent Financial Statements present fairly Parent's financial condition, operating results and cash flows as of the dates, and for the periods, indicated therein. Parent's unaudited balance sheet as of June 30, 2020 is referred to hereinafter as the "Current Parent Balance Sheet."

(b) Neither Parent nor any of its subsidiaries has any Liability except liabilities that (a) have been reflected in the Current Parent Balance Sheet (to the extent of such reflection) or disclosed in Section 3.5(b) of the Parent Schedule of Exceptions, (b) have arisen in the ordinary course of business consistent with past practices since the date of the Current Parent Balance Sheet; (c) are Third-Party Expenses, or (d) are executory obligations arising in the ordinary course of business under Contracts to which Parent is a party (and not as a result of the breach of any such Contract or otherwise). Section 3.5(b) of the Parent Schedule of Exceptions sets forth a complete and accurate list of all Indebtedness of Parent as of the date of this Agreement.

3.6 Series A-2 Preferred Stock and Parent Common Stock. The rights, preferences, privileges and restrictions of the Parent Series A-2 Preferred Stock and Parent Common Stock are as stated in the Parent Restated Charter. When issued in compliance with the provisions of this Agreement and Parent Restated Charter, the Parent Series A-2 Preferred Stock and Parent Common Stock will be validly issued, fully paid and nonassessable, and will be free of any liens or encumbrances other than (i) liens and encumbrances created by or imposed upon the stockholders receiving such shares and (ii) any obligations set forth in the Parent Restricted Stock Agreement, the Parent Investors' Rights Agreement, the Parent Voting Agreement and Parent Right of First Refusal Agreement; provided, however, that the Parent Series A-2 Preferred Stock and Parent Common Stock may be subject to restrictions on transfer under state and/or federal securities Laws as set forth herein or as otherwise required by such Laws at the time a transfer is proposed. To the extent applicable, Parent has obtained valid waivers of any rights by other parties to purchase any of the Merger Shares covered by this Agreement.

3.7 Capitalization.

(a) As of the date of this Agreement and immediately after filing the Parent Restated Charter but prior to the Effective Time, the authorized capital stock of Parent consists of 200,000,000 shares of Common Stock, par value $0.001 per share, and 83,590,362 shares of preferred stock, par value $0.001 per share, 28,000,000 of which are designated Series A Preferred Stock ("Parent Series A Preferred Stock"), 47,727,268 of which are designated Series A-1 Preferred Stock ("Parent Series A-1 Preferred Stock") and 7,863,094 of which are designated Series A-2 Preferred Stock ("Parent Series A-2 Preferred Stock"). As of the date of this Agreement and immediately after filing the Parent Restated Charter but prior to the Effective Time, there are 19,021,056 outstanding shares of Common Stock, 28,000,000 outstanding shares of Parent Series A Preferred Stock, 47,727,268 outstanding shares of Parent Series A-1 Preferred Stock and no outstanding shares of Parent Series A-2 Preferred Stock. Parent has no other shares of capital stock authorized, issued or outstanding.

(b) All of the outstanding options to purchase Parent Common Stock were issued pursuant to Parent's 2016 Stock Incentive Plan (the "Parent 2016 Option Plan"). A true and complete copy of the Parent 2016 Option Plan has been provided to the Company, and the Parent 2016 Option Plan has not been amended, modified or supplemented since being provided to the Company.

(c) As of the date of this Agreement, options to purchase 19,046,758 shares of Parent Common Stock have been granted and are outstanding (the "Outstanding Parent Options"). Other than the Outstanding Parent Options, the conversion rights of the Parent Series A Preferred Stock and as otherwise contemplated by this Agreement, there are no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any stock of Parent or other securities of Parent; (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any stock of Parent or other securities of Parent; or (iii) agreement under which Parent is or may become obligated to sell or otherwise issue any stock of Parent or any other securities of Parent. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to give rise to or provide a reasonable basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of capital stock of Parent. There are no outstanding or authorized stock appreciation, stock unit, phantom stock, profit participation or other similar rights with respect to Parent. Except for the Parent Voting Agreement, Parent is not a party to, and as of the date hereof, there are no other voting trusts, proxies, or other Contracts or understandings with respect to the voting stock of Parent.

3.8 Parent Tax Matters.

(a) Tax Returns and Audits.

(i) Each of Parent and the Merger Sub has prepared and timely filed all material Returns required to be filed by it, and such Returns are true and correct in all material respects and have been completed in all material respects in accordance with applicable Law. Each of Parent and the Merger Sub has paid all Taxes it is required to pay (whether or not shown on any Return).

(ii) Each of Parent and the Merger Sub has complied in all material respects with all applicable Laws relating to the payment, reporting and withholding of Taxes (including, without limitation, withholding of Taxes pursuant to Sections 1441, 1442, 1445, 1446, 1471, 1472, 1473, and 1474 of the Code or similar provisions under any federal, state, local or foreign Law), has, within the time and in the manner prescribed by Law, withheld from employee wages or consulting compensation and timely paid over to the proper governmental authorities (or is properly holding for such timely payment) all amounts required to be so withheld and paid over under all applicable Laws, including federal and state income Taxes, state, local and foreign sales, use or other similar Taxes, Federal Insurance Contribution Act, Medicare, relevant state income and employment Tax withholding Laws, and has timely filed all withholding and sales or use Tax Returns, for all periods.

(iii) Each of Parent and the Merger Sub has never been delinquent in the payment of any Tax, nor is there any Tax deficiency outstanding, assessed or proposed against Parent, nor has Parent executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any Tax.

(iv) Each of Parent and the Merger Sub has disclosed on its federal income Tax Returns all positions that could give rise to a substantial understatement penalty under Section 6662 of the Code.

(v) No audit or other examination of any Return of Parent or Merger Sub is presently in progress, nor has Parent or Merger Sub been notified by any Tax authority (orally or in writing, formally or informally) of any threat or plan to request such an audit or other examination.

(vi) Each of Parent and the Merger Sub has no liabilities for unpaid federal, state, local or foreign Taxes that have not been accrued or reserved on the Current Parent Balance Sheet, whether asserted or unasserted, contingent or otherwise, and Neither Parent nor the Merger Sub has incurred no Liability for Taxes since the date of the Current Parent Balance Sheet other than in the ordinary course of business.

(vii) Each of Parent and the Merger Sub has made available to Company copies of all Returns for Parent and the Merger Sub filed for all periods since its inception, together with all related workpapers and analysis created by or on behalf of Parent and the Merger Sub.

(viii) There are (and, immediately following the Effective Time, there will be) no Liens on the assets of Parent or Merger Sub relating to or attributable to Taxes other than customary Liens for Taxes not yet due and payable.

(ix) Parent has never been, at any time, a "United States Real Property Holding Corporation" within the meaning of Section 897(c)(2) of the Code.

(x) There are no Tax rulings, requests for rulings, or "closing agreements" (as described in Section 7121 of the Code or any corresponding provision of state, local or foreign Tax Law) relating to Parent or Merger Sub that could affect the Company's Liability for Taxes for any period after the Closing Date. Neither Parent nor the Merger Sub will be required to include any item of income in, or exclude any item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing as a result of any: (i) adjustment pursuant to Section 481 of the Code (or any corresponding or similar provision of federal, state, local or foreign Tax Law); (ii) installment sale or open transaction disposition made on or prior to the Closing; (iii) prepaid amount received on or prior to the Closing; (iv) intercompany transaction or any excess loss account described in Treasury Regulations under Section 1502 of the Code; (v) election with respect to income from the discharge of indebtedness under Section 108(i) of the Code; or (vi) any similar election, action or agreement that would have the effect of deferring Liability for Taxes of Parent or Merger Sub from any period ending on or before the Closing Date to any period ending after the Closing Date.

(xi) With respect to any stock or other property transferred in connection with the performance of services for Parent or Merger Sub, a valid Section 83(b) election in accordance with the requirements of the Code has been made, copies of which have been made available to Company.

(xii) Except as set forth in Section 3.8(a)(xii) of the Parent Schedule of Exceptions, Parent is not party to any Contract, Parent Employee Plan, employment agreement or other arrangement that is in any part a "nonqualified deferred compensation plan" subject to Section 409A of the Code and the regulations and other guidance promulgated thereunder. Parent is not a party to, or otherwise obligated under, any Contract, Parent Employee Plan, employment agreement or other arrangement that provides for a gross up of any Tax imposed by Section 409A of the Code. Each such nonqualified deferred compensation plan has been operated in compliance in all material respects in both form and in operation with Section 409A of the Code. No Outstanding Parent Options or other right to acquire capital stock of Parent (A) has an exercise price that has ever been less than the fair market value of the underlying equity as of the date such option or right was granted, (B) has any feature for the deferral of compensation other than the deferral of recognition of income until the later of exercise or disposition of such option or rights (within the meaning of Section 409A of the Code), (C) has been granted after December 31, 2004, with respect to any class of stock of Parent that is not "service recipient stock" (within the meaning of applicable regulations under Section 409A of the Code) or (D) has failed to be properly accounted for in accordance with GAAP in the Parent Financial Statements.

3.9 Property. The property and assets that Parent and the Merger Sub owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair Parent's and the Merger Sub's ownership or use of such property or assets. With respect to the property and assets it leases, Parent and the Merger Sub are in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances other than those of the lessors of such property or assets. Parent and the Merger Sub do not own any real property.

3.10 Parent Intellectual Property. Parent owns or possesses sufficient legal rights to all Parent Intellectual Property used by it as of the date of this Agreement and, as so used, without any known conflict with, or known infringement of, the rights of others. To Parent's Knowledge, no product or service marketed or sold (or proposed to be marketed or sold) by Parent violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than as set forth on Section 3.11 of the Parent Schedule of Exceptions and with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Parent Intellectual Property, nor is Parent bound by or a party to any options, licenses or agreements of any kind with respect to the Patents, trademarks, service marks, trade names, Copyrights, Trade Secrets, licenses, information, proprietary rights and processes of any other Person. Parent has not received any communications alleging that Parent has violated, or by conducting its business, would violate any of the Patents, trademarks, service marks, tradenames, Copyrights, Trade Secrets, mask works or other proprietary rights or processes of any other Person. Parent has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with Parent's business. To Parent's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by Parent. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted. Section 3.11 of the Parent Schedule of Exceptions lists all Patents that are Parent Intellectual Property as of the date of this Agreement. For purposes of this Section 3.11, the Parent shall be deemed to have knowledge of a patent right if the Parent has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent Laws.

3.11 Fees and Expenses. Neither Parent nor the Merger Sub has incurred, nor will either incur, directly or indirectly, any Liability for investment banking fees or for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby.

3.12 No Changes. Since the date of the Current Parent Balance Sheet, there has or have not been, occurred or arisen any Parent Material Adverse Effect, and no event has occurred or circumstance has arisen that, in combination with any other events or circumstances, will or would reasonably be expected to have or result in a Parent Material Adverse Effect.

3.13 Parent Interested Person Transactions.

(a) No officer or director of Parent or, to the knowledge of Parent, holder of more than five percent (5%) of the outstanding shares of Parent capital stock (nor any ancestor, sibling, descendant or spouse of any of such Persons, or any trust, partnership, corporation or other Person in which any of such Persons has or has had an interest), (a "Parent Interested Person"), has or has had, directly or indirectly, (i) an economic interest in any entity which furnished or sold, or furnishes or sells, services, products or technology that Parent furnishes or sells, or proposes to furnish or sell, or (ii) any economic interest in any entity that purchases from or sells or furnishes to Parent, any services, products or technology, or (iii) a beneficial interest in any Contract to which Parent is a party, except in the case of clause (iii) in any such Person's capacity as an officer, director or stockholder of Parent; provided, however, that ownership of no more than five percent (5%) of the outstanding voting stock of a private corporation, or one percent (1%) of the outstanding voting stock of a publicly traded corporation, shall not be deemed to be an "interest in any entity" for purposes of this Section 3.13.

(b) All transactions pursuant to which any officer, director or stockholder of Parent any Parent Interested Person has purchased any services, products or technology from, or sold or furnished any services, products or technology to, Parent, have been on an arms' length basis on terms no less favorable to Parent than would be available from an unaffiliated party.

3.14 Governmental Authorization. Each material consent, license, permit, grant or other authorization (i) pursuant to which Parent currently operates or holds any interest in any of its properties, or (ii) which is required for the operation of Parent's business as currently conducted has been issued or granted to Parent and is in full force and effect and is not and will not be affected by the transactions contemplated hereby.

3.15 Litigation. There is no action, suit, claim or proceeding of any nature pending or, to the Knowledge of Parent, threatened or reasonably anticipated against or involving Parent, any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such. There is no investigation, inquiry or other proceeding pending or, to the Knowledge of Parent, threatened or reasonably anticipated against or involving Parent any of its properties (tangible or intangible) or any of its officers or directors in their respective capacities as such by or before any Governmental Entity. No Governmental Entity has provided Parent with written notice challenging or questioning the legal right of Parent to conduct its operations as conducted at that time or as presently conducted.

3.16 Compliance with Laws. Parent has complied in all material respects with, is not in material violation of, and has not received any notices of violation with respect to, foreign, federal, state or local Laws. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to (with or without notice or lapse of time) constitute or result in a material violation by Parent of, or a failure on the part of Parent to comply in any material respect with, any applicable Law.

3.17 Employee Benefit Plans and Compensation.

(a) Schedule. Section 3.17(a)(1) of the Parent Schedule of Exceptions contains an accurate and complete list of each Parent Employee Plan. Parent has not made any plan or commitment to establish, adopt or enter into any new Parent Employee Plan, or to modify any Parent Employee Plan (except to the extent required by Law). Section 3.17(a)(2) of the Parent Schedule of Exceptions sets forth a table listing the name of each exempt employee and/or consultant of Parent.

(b) Documents. Parent has made available to the Company, to the extent existing, (i) correct and complete copies of all documents embodying each Parent Employee Plan, including all amendments, summary plan descriptions, and trust documents, (ii) the three (3) most recent annual reports (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA for any Parent Employee Plan, (iii) if any Parent Employee Plan is funded, the most recent annual and periodic accounting of such Parent Employee Plan's assets, (iv) all material written Contracts relating to each Parent Employee Plan, including administrative service agreements, trust agreements and group insurance contracts, (v) all material communications relating to any established or proposed Parent Employee Plan that relates to any material amendments, terminations, increases or decreases in benefits, acceleration of payments or vesting schedules or other events that would result in any Liability to Parent or its ERISA Affiliates, (vi) all material correspondence to or from any Governmental Entity relating to any Parent Employee Plan, (vii) all policies pertaining to fiduciary liability insurance covering the fiduciaries for each Parent Employee Plan, (viii) discrimination test results for each Parent Employee Plan for the three (3) most recent plan years, (ix) the most recent IRS determination letter (or opinion letter in the case of a prototype plan) issued with respect to each Parent Employee Plan, and (x) visa and work permit information with respect to current Parent Personnel.

(c) Employee Plan Compliance. Each Parent Employee Plan has been established and maintained in accordance with its terms and in material compliance with all applicable Laws. Parent has performed all material obligations required to be performed by it under each Parent Employee Plan. Each Parent Employee Plan intended to be qualified under Section 401(a) of the Code has obtained a favorable determination letter from the IRS or is entitled to rely on an opinion letter issued to the Parent Employee Plan's prototype sponsor. There are no actions, suits or claims pending or, to the Knowledge of Parent, threatened or reasonably anticipated (other than routine claims for benefits) against any Parent Employee Plan or against the assets of any Parent Employee Plan. Each Parent Employee Plan that is not an

agreement with any Parent Personnel can be amended, terminated or otherwise discontinued prior to the Effective Time in accordance with its terms, without Liability to Parent or the Company (other than ordinary administration expenses). There are no audits, inquiries or proceedings pending or to the Knowledge of Parent, threatened, or reasonably anticipated, by the IRS, United States Department of Labor or any other Governmental Entity with respect to any Parent Employee Plan. The Company has made all contributions and other payments required by and due under the terms of each Parent Employee Plan.

(d) No Pension Plans or Welfare Plans. Neither Parent nor any of its ERISA Affiliates has ever maintained, established, sponsored, participated in, or contributed to, and does not otherwise have any Liability with respect to or under any (i) employee benefit plan subject to Section 412 of the Code or Title IV of ERISA (ii) "multiemployer plan" within the meaning of Section (3)(37) of ERISA, (iii) "multiple employer plans" for purposes of ERISA, or (iv) a "funded welfare plan" within the meaning of Section 419 of the Code. No Parent Employee Plan provides health or disability benefits that are not fully insured through an insurance contract.

3.18 Data Privacy. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any Personal Information, Parent is and has been in compliance with all applicable Laws in all relevant jurisdictions, Parent's privacy policies and the requirements of any contract or codes of conduct to which Parent is a party. Parent has commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. Parent is and has been in compliance in all material respects with all Laws relating to data loss, theft and breach of security notification obligations.

ARTICLE 4

CONDUCT PRIOR TO THE EFFECTIVE TIME

4.1 Conduct of Business of the Company and Business of Parent. During the period from the date of this Agreement and continuing until the earlier of the termination of this Agreement or the Effective Time:

(a) the Company agrees to operate the business of the Company in the usual, regular and ordinary course, consistent with past practice and in substantially the same manner as heretofore conducted, except as expressly contemplated by this Agreement or otherwise consented to by Parent in writing;

(b) Parent agrees to operate the business of Parent in the usual, regular and ordinary course, consistent with past practice and in substantially the same manner as heretofore conducted, except as expressly contemplated by this Agreement or otherwise consented to by the Company in writing;

(c) the Company and Parent each further agree to pay their respective debts and Taxes when due, to pay or perform all other obligations when due (including pay accounts payable without extension), to use their commercially reasonable efforts to preserve intact their present respective business organizations, to preserve their respective cash in accordance with past practice, to use their commercially reasonable efforts to promptly collect all their respective receivables, to use their commercially reasonable efforts to keep available the services of their present respective officers and employees (other than termination for cause following notice to and consultation with one another), to use their commercially reasonable efforts to preserve and maintain in full force and effect all Owned Company Intellectual Property and Owned Parent Intellectual Property (respectively), to timely pay all fees, costs, royalties, and expenses relating to Owned Company Intellectual Property and Owned Parent Intellectual Property (respectively), and to timely file and pay for all applications, statements, documents, extensions, disclaimers, and registrations relating to Owned Company Intellectual Property and Owned Parent Intellectual Property (respectively), and to preserve their respective relationships with customers, suppliers, distributors, licensors, licensees and others having business dealings with the Company and Parent, respectively; and

(d) except with the prior written consent of Parent or as set forth on Schedule 4.1(d), the Company further agrees it shall not do any of the following:

(i) except in the usual, regular and ordinary course of its business, enter into any corporate strategic relationship or a material transaction, purchase, sell or otherwise dispose of, or enter into any agreement or other arrangement for the purchase, sale or other disposition of, any properties or assets;

(ii) issue any equity securities, any securities convertible or exchangeable for equity securities or options, warrants or other purchase rights therefor or declare or pay any distribution;

(iii) make or enter into any commitment for capital expenditures of the Company in excess of $50,000; or

(iv) make any material changes in the compensation or benefits payable or paid, whether conditionally or otherwise, to any of its current or former employees, officers, directors or other service providers.

4.2 Notice of Material Events. During the period from the date of this Agreement and continuing until the earlier of the termination of this Agreement or the Effective Time, the Company shall promptly notify Parent of any event or occurrence or emergency not in the ordinary course of business of the Company and any material event involving the Company, and Parent shall promptly notify the Company of any event or occurrence or emergency not in the ordinary course of business of Parent and any material event involving Parent.

ARTICLE 5

ADDITIONAL AGREEMENTS

5.1 Stockholder Matters.

(a) Within twenty-four (24) hours following the execution of this Agreement, the Company shall deliver to Parent the duly and validly executed Stockholder Consent signed by the holders of all of the outstanding shares of Company Capital Stock signed by the holders of all of the outstanding shares of Company Capital Stock and officers and directors of the Company.

(b) Prior to the termination of this Agreement, the board of directors of the Company shall not revoke or modify its unanimous approval of this Agreement, the Merger and the other transactions contemplated by this Agreement, including its unanimous recommendation in favor of this Agreement, the Merger and the other transactions contemplated by this Agreement. Prior to the termination of this Agreement, the board of directors of Parent and the Merger Sub shall not revoke or modify its unanimous approval of this Agreement, the Merger and the other transactions contemplated by this Agreement, including its unanimous recommendation in favor of this Agreement, the Merger and the other transactions contemplated by this Agreement.

5.2 Access to Information. Each of the Company and Parent shall afford each other and their respective accountants, counsel and other representatives, reasonable access during the period from the date hereof and prior to the Effective Time to (i) all of their respective properties, books, Contracts, commitments and records, including each other's source code, (ii) other information concerning the business, properties and personnel (subject to restrictions imposed by applicable Law) of the Company or Parent, as the case may be, as the other may reasonably request, and (iii) all Company Personnel identified by Parent and all Parent Personnel identified by the Company. The Company agrees to provide to Parent, and Parent agrees to provide to the Company, and their respective accountants, counsel and other representatives copies of internal financial statements (including Tax Returns and supporting documentation) promptly upon request. Each of Parent and the Company may make inquiries of Persons having business relationships with the Company or Parent, respectively, (including suppliers, licensors and customers). Without limiting the generality of any of the foregoing, each of the Company and Parent shall provide the other with reasonable access to all information relating to, and cooperate with Parent and the Company in their respective due diligence investigations regarding, the Foreign Corrupt Practices Act of 1977, as amended and other anti-corruption matters. No information or knowledge obtained in any investigation pursuant to this Section 5.2 shall affect or be deemed to modify any representation or warranty contained herein, any conditions to the obligations of the parties to consummate the Merger in accordance with the terms and provisions hereof or any rights or remedies of the parties hereunder.

5.3 Expenses. Except as otherwise provided in this Agreement, the Parties shall pay their own legal and other fees and expenses incurred in connection with negotiating, executing and performing this Agreement and the transactions contemplated hereby, including any related broker's or finder's fees.

5.4 Public Disclosure. Neither the Company nor Parent shall issue or make any statement or communication to any third-party (other than to its respective agents) regarding the terms or subject matter of this Agreement or the transactions contemplated hereby, including, if applicable, the termination of this Agreement and the reasons therefor, without the prior written consent of the other party.

5.5 Commercially Reasonable Efforts. Each of the parties hereto shall use commercially reasonable efforts to take promptly, or cause to be taken promptly, all actions, and to do promptly, or cause to be done promptly, all things necessary, proper or advisable under applicable Laws to consummate and make effective the transactions contemplated hereby, to obtain all necessary waivers, consents and approvals and to effect all necessary registrations, recordations, assignments, transfers, payments, and filings in order to consummate and make effective the transactions contemplated by this Agreement for the purpose of securing to the parties hereto the benefits contemplated by this Agreement.

5.6 Notification of Certain Matters. Each party hereto shall give prompt notice to the other party hereto (either Parent or the Company, as appropriate) of: (a) the occurrence or non-occurrence of any event which is reasonably likely to cause any representation or warranty of such party contained in this Agreement to be untrue or inaccurate at or prior to the Effective Time and (b) any failure of such party to comply with or satisfy any covenant, condition or agreement to be complied with or satisfied by it hereunder; provided, however, that the delivery of any notice pursuant to this Section 5.6 shall not (i) limit or otherwise affect any rights of or remedies available to the party receiving such notice, or (ii) constitute an acknowledgment or admission of a breach of this Agreement. No disclosure pursuant to this Section 5.6, however, shall be deemed to amend or supplement the Schedule of Exceptions or prevent or cure any misrepresentations, breach of warranty or breach of covenant.

5.7 Additional Documents and Further Assurances. Each party hereto, at the request of another party hereto, shall execute and deliver such other instruments and do and perform such other acts and things as may be necessary or desirable for effecting completely the consummation of the Merger and the transactions contemplated hereby.

5.8 Spreadsheets. The Company shall prepare, and deliver to Parent at least two (2) Business Days prior to the Closing Date, a spreadsheet certified by the President of the Company as true, complete, correct and in accordance with this Agreement and the Company Charter Documents as of the Closing, and which separately lists (the spreadsheet containing the information set forth, and otherwise in form and substance as referred to, in this Section 5.8 being referred to as a "Spreadsheet"):

(a) the Total Fully Diluted Shares of the Company reasonably itemized and detail, and each party's calculation of the SAFE Consideration and Common Consideration based thereon;

(b) with respect to each Company Stockholder as of immediately prior to the Effective Time: (i) the name and address of such holder; (ii) the number, class and series of shares of Company Capital Stock held by such holder immediately prior to the Effective Time (broken out on a certificate by certificate basis, including the respective certificate numbers); (iii) the number of shares of Parent Common Stock payable to each holder pursuant to Section 1.6(a) hereof; and

(c) with respect to each holder of a Company SAFE as of immediately prior to the Effective Time: (i) the name and address of such holder; (ii) the aggregate principal for such Company SAFE; (iii) the number of shares of Parent Series A-2 Stock payable to such holder pursuant to Section 1.6(a).

5.9 Transfer Taxes. All transfer, documentary, sales, use, stamp, registration and all other Taxes, fees and duties, if any, incurred in connection with the transactions contemplated by this Agreement, and all expenses associated therewith, will be borne and paid 50% by Parent and 50% by the Company Stockholders. Parent will prepare and file all necessary Tax Returns and other documentation with respect to all such transfer, documentary, sales, use, stamp, registration and other Taxes and fees, and, if required by applicable Law, the other parties.

5.10 Tax-Free Reorganization. Parent and the Company will (i) use all reasonable best efforts to cause the Merger to constitute a reorganization under Section 368(a) of the Code, (ii) file all Returns consistent with the Merger qualifying as a reorganization within the meaning of Section 368(a) of the Code, unless required otherwise by a change in applicable Law, and (iii) not take any action or fail to take any action required hereby that could reasonably be expected to prevent or impede the Merger from qualifying as a reorganization within the meaning of Section 368(a) of the Code. Parent and the Company agree to defend the intended tax treatment in any audit in good faith until there is a contrary assessment or determination made by a Governmental Entity.

5.11 Indemnification of Company Directors and Officers. Parent and the Surviving Corporation shall indemnify each officer or director of the Company who is or may be entitled to indemnification and related reimbursement or advancement of expenses from the Company for acts or omissions in such individual's capacity as an officer or director of the Company pursuant to the Company Charter Documents, pursuant to any indemnification agreement or other similar agreement between the Company and such officer or director, or pursuant to any applicable Law, to the same extent as such Company indemnification obligations in effect immediately prior to Closing.

5.12 Confidentiality.

(a) Any party hereunder ("Disclosing Party") may have disclosed or will disclose to some other party ("Receiving Party"), and Receiving Party may have acquired or will acquire during the course and conduct of activities under, or the negotiations of this Agreement and each of the other agreements and instruments contemplated hereby to be executed by the parties hereto (the "Transaction Documents"), certain proprietary or confidential information of Disclosing Party. Such information, in addition to any and all processes, formulae, data, Trade Secrets, improvements, inventions, techniques, marketing plans, strategies, customer lists or other information that has been created, discovered or developed by the Disclosing Party, or has otherwise become known to the Disclosing Party, or to which rights have been granted or assigned to the Disclosing Party, as well as any other information and materials that are marked or designated as confidential or proprietary to or by the Disclosing Party (including all information and materials of the Disclosing Party's customers and any other third-party and their consultants), in each case, that are disclosed by the Disclosing Party or its representatives to the Receiving Party or its representatives, as well as the existence and terms of the Transaction Documents, will be considered "Confidential Information" hereunder. During the period ending on the 5-year anniversary of this Agreement, Receiving Party will keep all Disclosing Party's

Confidential Information in confidence and with the same degree of care with which Receiving Party holds its own confidential information (though no less than reasonable care) and will not use, and will cause its Affiliates and their respective officers, directors, employees, consultants, contractors, subcontractors, licensees, sublicensees, or agents not to use, Disclosing Party's Confidential Information except for in connection with the performance of its obligations and exercise of its rights under the Transaction Documents or as otherwise expressly permitted hereunder.

(b) Exceptions. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information set forth in Section 5.12(a) will not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (i) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates; (ii) is obtained by Receiving Party or any of its Affiliates after the date hereof from a third-party under no obligation of confidentiality with respect to such information; or (iii) is independently developed after the date hereof by employees, consultants, contractors or agents of Receiving Party or any of its Affiliates without the aid, application or use of Disclosing Party's Confidential Information.

(c) Permitted Disclosures. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(i) in order to comply with applicable Law or the rules of any securities exchange or with a legal or administrative proceeding; and

(ii) in connection with performing its obligations and exercising any rights under this Agreement or the Transaction Documents or in connection with any litigation or dispute resolution proceedings between the parties hereto.

If and whenever any Confidential Information is disclosed in accordance with this Section 5.12(c), such disclosure shall not cause any such information to cease to be Confidential Information except to the extent that such disclosure results in a public disclosure of such information. The Receiving Party shall notify the Disclosing Party of the Receiving Party's intent to make any disclosures pursuant to Section 5.12(c)(i) or 5.12(c)(ii) sufficiently prior to making such disclosure so as to allow the Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information (including seeking a confidential treatment order or protective or limiting order, as applicable), and the Receiving Party will provide reasonable assistance to the Disclosing Party with respect thereto; provided that, in any event, the Receiving Party will use reasonable measures to ensure confidential treatment of such information and shall only disclose such Confidential Information of the Disclosing Party as is necessary to comply with such Laws or judicial process. Notwithstanding the foregoing or anything contained in this Section 5.12(c) to the contrary, the Investors (as defined in the Parent Investors' Rights Agreement) shall be permitted to disclose Confidential Information in accordance with Section 3.4 of the Parent Investors' Rights Agreement.

5.13 Personnel Matters. Prior to Closing, the Company shall terminate the employment of each of the employees of the Company set forth on Schedule 5.13 (the "Key Company Employees") pursuant to a severance agreement reasonably satisfactory to Parent. In addition, prior to Closing, each Key Company Employee shall have been offered the opportunity to accept consulting agreements with Parent providing for transition services at an agreed upon period and consulting rate to enable the transfer of know-how and other tangible and intangible assets of the Company to the Parent. For the sake of clarity, any Key Company Employee engaged by Parent will be a consultant and, as a condition to their being engaged by Parent, must enter into customary invention assignment and confidentiality agreements.

ARTICLE 6

CONDITIONS TO THE MERGER

6.1 Conditions to the Obligations of Each Party to Effect the Merger. The respective obligations of the Company, Parent and the Merger Sub to effect the Merger shall be subject to the satisfaction, at or prior to the Closing, of the following conditions:

(a) No Injunctions or Restraints; Illegality. No Governmental Entity shall have enacted, issued, promulgated, enforced or entered any statute, rule, regulation, executive order, decree, injunction or other order (whether temporary, preliminary or permanent) which is in effect and which has the effect of making the Merger illegal or otherwise prohibiting the consummation of the Merger.

(b) Stockholder Consent. The Stockholder Consent shall have been obtained such that the holders of all of the outstanding Company Capital Stock shall have validly adopted and approved this Agreement, the Merger and the other transactions contemplated hereby and such approval shall not have been withdrawn, rescinded or revoked.

6.2 Additional Conditions to the Obligations of Parent and the Merger Sub. The obligation of Parent and the Merger Sub to effect the Merger also shall be subject to the satisfaction at or prior to the Closing of each of the following conditions, any of which may be waived, in writing, exclusively by Parent:

(a) Representations, Warranties and Covenants. (i) Each representation and warranty of the Company contained in this Agreement (A) shall have been true and correct on and as of the date of this Agreement and (B) shall be true and correct in all material respects on and as of the Closing Date with the same force and effect as if made on and as of the Closing Date (except for those representations and warranties which address matters only as of a particular date, which shall have been true and correct in all material respects as of such particular date); and (ii) the Company shall have performed and complied in all material respects with all covenants and obligations under this Agreement required to be performed and complied with by the Company prior to the Closing.

(b) Governmental Approvals. All filings with and approvals of any Governmental Entity required to be made or obtained in connection with the Merger and the other transactions contemplated by this Agreement shall have been made or obtained and shall be in full force and effect.

(c) No Orders. No temporary restraining order, preliminary or permanent injunction or other order issued by any court of competent jurisdiction or other legal restraint or prohibition (i) prohibiting Parent's ownership or operation of any portion of the business of the Company, or (ii) compelling Parent, Merger Sub or the Company to dispose of or hold separate all or any material portion of the business or assets of Parent, the Company or any of their respective Subsidiaries or Affiliates as a result of the Merger; or (iii) imposing any other antitrust restraint, shall be in effect (including as a condition to any Governmental approval referred to in Section 6.2(b) hereof), nor shall any action, suit, claim or proceeding brought by an administrative agency or commission or other Governmental Entity seeking any of the foregoing be threatened or pending.

(d) Litigation. There shall be no action, suit, claim or proceeding of any nature pending, or overtly threatened, against Parent, Merger Sub or the Company, their respective Subsidiaries or properties or any of their respective officers or directors, arising out of, or in any way connected with, the Merger or the other transactions contemplated by the terms of this Agreement.

(e) Mandatory Third-Party Consents. The Company shall have obtained all necessary consents to assignment, waivers and approvals, and timely provided all notifications, with respect to the transactions contemplated by this Agreement under those Contracts listed on Schedule 6.2(e).

(f) Termination of Agreements. The Company shall have terminated each of those agreements listed on Schedule 6.2(f), and each such agreement shall be of no further force or effect.

(g) Amendment of Agreements. The Company shall have amended each of those agreements listed on Schedule 6.2(g) in the manner specified on Schedule 6.2(g), and each such agreement shall be in full force and effect, as amended.

(h) Resignation of Officers and Directors. Parent shall have received a written resignation from each of the officers and directors of the Company effective as of the Closing.

(i) No Company Material Adverse Effect. Since the date of this Agreement, there shall not have occurred any event, change or effect and no circumstance or condition of any character shall exist that, individually or in combination with all other events, changes, effects, circumstances or conditions, has had or would reasonably be expected to have or result in a Company Material Adverse Effect.

(j) Certificate of the Company. Parent shall have received a certificate, validly executed by a duly authorized officer or director of the Company (an "Authorized Company Representative") for and on its behalf, to the effect that, as of the Closing, (i) the condition to the obligations of Parent and the Merger Sub set forth in Section 6.2(a) hereof has been duly satisfied and (ii) each and every one of the other conditions to the obligations of Parent and the Merger Sub set forth in this Section 6.2 have been duly satisfied (unless otherwise waived in accordance with the terms hereof).

(k) Certificate of Authorized Company Representative. Parent shall have received a certificate, validly executed by an Authorized Company Representative, certifying as to (i) the terms and effectiveness of the Company Charter Documents, (ii) the valid adoption of resolutions of the board of directors of the Company (whereby the Merger and the other transactions contemplated by this Agreement were unanimously approved by the Board of Directors of the Company), (iii) the Stockholder Consent executed by holders of all of the outstanding Company Capital Stock, and (iv) the incumbency of the executive officers of the Company.

(l) Certificate of Good Standing. Parent shall have received a certificate of good standing for the Company from each jurisdiction in which such entity is formed or is required to be qualified as a foreign corporation, dated within five (5) days prior to the Closing Date.

(m) FIRPTA Certificate. Parent shall have received a statement in a form reasonably acceptable to Parent for purposes of satisfying Parent's obligations under, and in form and substance as required under, Section 1445 of the Code and Treasury Regulation Section 1.1445-2(c)(3), validly executed by a duly authorized officer of the Company under penalty of perjury.

(n) Spreadsheet. Parent shall have received the Spreadsheet at least two (2) Business Days prior to the Closing Date, which shall have been certified as true, complete, correct and in accordance with this Agreement and the Company Charter Documents as of the Closing by an Authorized Company Representative.

(o) Unanimous Board Approval. The board of directors of the Company shall have unanimously approved the Merger and the other transactions contemplated by this Agreement.

(p) Certificate of Merger. The Company shall have duly executed and delivered the Certificate of Merger to Parent.

(q) Voting Agreement. Each of the Company Stockholders and Company SAFE Holders has duly executed and delivered to Parent a counterpart to the Parent Voting Agreement, joining such person or entity to such agreement as Stockholder (as defined therein).

(r) Right of First Refusal. Each of the Company Stockholders and Company SAFE Holders has duly executed and delivered to Parent a counterpart to the Parent Right of First Refusal Agreement, joining such person or entity to such agreement as an Investor (as defined therein) or Key Holder (as defined therein).

(s) Investors' Rights Agreement. Each of the Company Stockholders and Company SAFE Holders has duly executed and delivered to Parent a counterpart to the Parent Investors' Rights Agreement, joining such person or entity to such agreement as Stockholder (as defined therein).

6.3 Additional Conditions to the Obligations of the Company. The obligation of the Company to effect the Merger also shall be subject to the satisfaction at or prior to the Closing of each of the following conditions, any of which may be waived, in writing, exclusively by the Company:

(a) Representations and Warranties. Each representation and warranty of Parent and the Merger Sub contained in this Agreement (i) shall have been true and correct on and as of the date of this Agreement, (ii) shall be true and correct in all material respects on and as of the Closing Date as if made on and as of the Closing Date (except for those representations and warranties which address matters only as of a particular date, which shall have been true and correct in all material respects as of such particular date) and (iii) Parent and the Merger Sub shall have performed and complied in all respects with all covenants and obligations under this Agreement required to be performed and complied with by Parent or Merger Sub prior to the Closing.

(b) Certificate of Parent. The Company shall have received a certificate, validly executed on behalf of Parent by a duly authorized officer of Parent to the effect that, as of the Closing, (i) the conditions to the obligations of the Company set forth in Section 6.3(a) have been satisfied and (ii) each and every one of the other conditions to the obligations of the Company set forth in this Section 6.3 have been duly satisfied (unless otherwise waived in accordance with the terms hereof).

(c) No Parent Material Adverse Effect. There shall not have occurred any event, change or effect and no circumstance or condition of any character shall exist that, individually or in combination with all other events, changes, effects, circumstances or conditions, has had or would reasonably be expected to have or result in a Parent Material Adverse Effect.

(d) Third Amended and Restated Certificate of Incorporation. Parent shall have filed its Third Amended and Restated Certificate of Incorporation in the form attached hereto as Exhibit D (the "Parent Restated Charter") with the Secretary of State of the State of Delaware.

(e) Certificate of Secretary of Parent. The Company shall have received a certificate, validly executed by the Secretary of Parent, certifying as to (i) the terms and effectiveness of the Parent Restated Charter and bylaws, (ii) the valid adoption of resolutions of the board of directors of Parent and the Merger Sub whereby the Merger and the other transactions contemplated by this Agreement were approved by the Board of Directors of Parent and the Merger Sub, and (iii) the incumbency of the executive officers of Parent.

(f) Certificate of Good Standing. The Company shall have received a certificate of good standing for Parent from the State of Delaware, dated within five (5) days prior to the Closing Date.

(g) Certificate of Merger. The Certificate of Merger shall have been duly filed with, and accepted by, the Secretary of State of the State of Delaware.

ARTICLE 7

TERMINATION, AMENDMENT AND WAIVER

7.1 Termination. Except as provided in Section 7.2 hereof, this Agreement may be terminated and the Merger abandoned at any time prior to the Effective Time:

(a) by mutual written consent of the Company and Parent;

(b) by Parent or the Company if: the Effective Time has not occurred before 5:00 p.m. (Eastern time) on October 30, 2020 (the "End Date"); provided, however, that if the Effective Time shall not have occurred before the End Date, but as of the End Date all of the conditions to the obligations of the parties to consummate the Merger pursuant to Article 6 hereof (other than those conditions that by their nature are to be satisfied at the Closing) have been satisfied or waived in writing, then at the election of either Parent or the Company, the End Date shall be extended a maximum of one (1) time for up to thirty (30) days; provided, further, however, that the right to terminate this Agreement under this Section 7.1(b) shall not be available to any party whose willful failure to fulfill any obligation hereunder has been the principal cause of, or resulted in, the failure of the Effective Time to occur on or before the End Date;

(c) by Parent or the Company if (i) there shall be a final non-appealable order of a court of competent jurisdiction in effect preventing consummation of the Merger, or (ii) there shall be any statute, rule, regulation or order enacted, promulgated or issued or deemed applicable to the Merger by any Governmental Entity that would make consummation of the Merger illegal;

(d) by Parent, if Parent is not in material breach of any material terms of this Agreement, upon a breach of any representation, warranty, covenant or agreement on the part of the Company set forth in this Agreement, or if any representation or warranty of the Company shall have become untrue, in either case such that the conditions set forth in Section 6.2(a) would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue; provided, however that if any such inaccuracy in the Company's representations and warranties or breach by the Company is curable by the Company prior to the End Date through the exercise of its commercially reasonable efforts, then Parent may not terminate this Agreement under this Section 7.1(d) prior to the end of a fifteen (15) day period following such breach (or inaccuracy arising) so long as the Company continues to exercise commercially reasonable efforts to cure such breach during such period (it being understood that Parent may not terminate this Agreement pursuant to this Section 7.1(d) if such breach by the Company is cured prior to the end of such period);

(e) by the Company, if the Company is not in material breach of any material terms of this Agreement, upon a breach of any representation, warranty, covenant or agreement on the part of Parent or Merger Sub set forth in this Agreement, or if any representation or warranty of Parent or Merger Sub shall have become untrue, in either case such that the conditions set forth in Section 6.3(a) would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue; provided, however that if any such inaccuracy in Parent's or Merger Sub's representations and warranties or breach by Parent or Merger Sub is curable by Parent or Merger Sub prior to the End Date through the exercise of its commercially reasonable efforts, then the Company may not terminate this Agreement under this Section 7.1(e) prior to the end of a fifteen (15) day period following such breach (or

inaccuracy arising) so long as Parent or Merger Sub, as applicable, continues to exercise commercially reasonable efforts to cure such breach during such period (it being understood that the Company may not terminate this Agreement pursuant to this Section 7.1(e) if such breach by Parent or Merger Sub is cured prior to the end of such period);

(f) by the Company, if the Company is not in material breach of any material terms of this Agreement, if a Parent Material Adverse Effect shall have occurred after the date of this Agreement and such Parent Material Adverse Effect has not been cured within thirty (30) days;

(g) by Parent, if Parent is not in material breach of any material terms of this Agreement, if a Company Material Adverse Effect shall have occurred after the date of this Agreement and such Company Material Adverse Effect has not been cured within thirty (30) days; or

(h) by Parent, if the Company has not obtained and delivered to Parent the Stockholder Consent pursuant to the requirements of Section 5.1(a) hereof.

7.2 Effect of Termination. In the event of termination of this Agreement as provided in Section 7.1 hereof, this Agreement shall forthwith become void and there shall be no Liability on the part of Parent, Merger Sub, the Company or their respective officers, directors, employees, agents, consultants, representatives or stockholders (in their respective capacities as such), if applicable; provided, however, that each party hereto shall remain liable for any willful breach of this Agreement by such party prior to its termination; and provided further, that, the provisions of Sections 5.3 (Expenses), 5.4 (Public Disclosure) and 5.12 (Confidentiality), hereof, Article 8 (General Provisions) hereof and this Section 7.2 (Effect of Termination) shall remain in full force and effect and survive any termination of this Agreement pursuant to the terms of this Article 7.

7.3 Amendment. This Agreement may be amended by the parties hereto at any time by execution of an instrument in writing signed on behalf of the party against whom enforcement is sought. For purposes of this Section 7.3, the Company Stockholders and Company SAFE Holders agree that any amendment of this Agreement signed by the Stockholder Representative after the Effective Time shall be binding upon and effective against the Company Stockholders and Company SAFE Holders whether or not they have signed such amendment; provided, however, that after the adoption of this Agreement by the Company Stockholders and Company SAFE Holders and without their further approval, no such amendment shall reduce the amount of or change the kind of consideration to be received in exchange for any shares of Company Capital Stock or Company SAFEs.

7.4 Extension; Waiver. At any time prior to the Effective Time, Parent and the Company may, to the extent legally allowed, (a) extend the time for the performance of any of the obligations of the other party hereto, (b) waive any inaccuracies in the representations and warranties made to such party contained herein or in any document delivered pursuant hereto, and (c) waive compliance with any of the agreements or conditions for the benefit of such party contained herein. Any agreement on the part of a party hereto to any such extension or waiver shall be valid only if set forth in an instrument in writing signed on behalf of such party. For

purposes of this Section 7.4, the Company Stockholders and Company SAFE Holders agree that any extension or waiver signed by the Company or Stockholder Representative shall be binding upon and effective against all Company Stockholders and Company SAFE Holders whether or not they have signed such extension or waiver. Such extension or waiver shall not be deemed to apply to any time for performance, inaccuracy in any representation or warranty, or noncompliance with any agreement or condition, as the case may be, other than that which is specified in the extension or waiver. The failure of any party to this Agreement to assert any of its rights under this Agreement or otherwise shall not constitute a waiver of such rights.

ARTICLE 8

GENERAL PROVISIONS

8.1 Survival of Warranties . None of the representations and warranties contained in this Agreement or in any certificate or schedule delivered pursuant to this Agreement shall survive the Effective Time. In furtherance, not limitation, of the foregoing, the Parties, intending to contractually shorten any otherwise applicable statute of limitations, hereby agree that: (a) the representations and warranties herein are intended solely to facilitate disclosure and to give effect to the closing conditions set forth in Sections 6.1, 6.2 and 6.3 and (b) no claim of any kind based on the failure of any representation or warranty to have been true and correct may be brought at any time after the Effective Time.

8.2 Notices . All notices and other communications hereunder shall be in writing and shall be deemed duly delivered (a) five (5) Business Days after being sent by registered or certified mail, return receipt requested, postage prepaid, (b) one (1) Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable nationwide overnight courier service, or (c) on the first Business Day following the date of confirmation of receipt of transmission by facsimile, in each case to the intended recipient as set forth below:

(a) if to Parent or Merger Sub, to:

Ikena Oncology, Inc.
50 Northern Avenue, 7th Floor
Boston, MA 02210

Attention: Chief Executive Officer
with a copy (which shall not constitute notice) to:

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
Attention: [***]
Facsimile No.: [***]

(b) if to the Company (prior to the Effective Time), to:

Amplify Medicines, Inc.
c/o Atlas Venture
400 Technology Square, 10th Floor
Boston, MA 02139
Attention: President

(c) if to the Stockholder Representative, to:

Atlas Venture Fund XI, L.P.
400 Technology Square, 10th Floor
Cambridge, MA 02139
Attn: [***]
Email: [***]

with a copy (which shall not constitute notice) to:

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
Attention: [***]
Facsimile No.: [***]

Any party to this Agreement may change the address to which notices and other communications hereunder are to be delivered by giving the other parties to this Agreement notice in the manner herein set forth.

8.3 Interpretation. The words “include,” “includes” and “including” when used herein shall be deemed in each case to be followed by the words “without limitation.” The table of contents and headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement. The term “willful breach” shall mean an action or omission that constitutes a breach of a covenant and that was taken or omitted to be taken for the purpose of breaching such covenant and was not merely a volitional action or omission but does not require malicious or tortious intent. The term “intentional misrepresentation” shall mean that an action or omission that constitutes a breach of a representation or warranty and that was taken or omitted to be taken for the purpose of misleading the party to whom such representation or warranty was made and was not merely a volitional action or omission but does not otherwise require malicious or tortious intent.

8.4 Counterparts. This Agreement may be executed by facsimile or other electronic transmission and in one or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party, it being understood that all parties need not sign the same counterpart.

8.5 Entire Agreement; Assignment. This Agreement, the Company Schedule of Exceptions and Parent Schedule of Exceptions, and the documents and instruments and other agreements among the parties hereto referenced herein: (i) constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior agreements and understandings both written and oral, among the parties with respect to the subject matter hereof; and (ii) shall not be assigned by operation of Law or otherwise, except that Parent may assign its rights and delegate its obligations (other than the obligation to issue Merger Shares and other Merger consideration) hereunder to its Affiliates or (after the Closing) to any purchaser of the Surviving Corporation or of all or substantially all of the assets or business of the Surviving Corporation.

8.6 Severability. In the event that any provision of this Agreement or the application thereof, becomes or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the application of such provision to other Persons or circumstances will be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the economic, business and other purposes of such void or unenforceable provision.

8.7 Other Remedies. Any and all remedies herein expressly conferred upon a party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy.

8.8 Governing Law; Jurisdiction; Venue. EXCEPT AS OTHERWISE PROVIDED HEREIN, ALL QUESTIONS AND/OR DISPUTES CONCERNING THE CONSTRUCTION, VALIDITY AND INTERPRETATION OF THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY SHALL BE GOVERNED BY THE INTERNAL LAWS, AND NOT THE LAW OF CONFLICTS, OF THE STATE OF DELAWARE. THE PARTIES HERETO, HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREE TO BE SUBJECT TO, AND HEREBY CONSENT AND SUBMIT TO, THE JURISDICTION OF THE COURTS OF THE STATE OF DELAWARE AND AGREE THAT ANY ACTION INVOLVING ANY EQUITABLE OR OTHER CLAIM SHALL BE BROUGHT EXCLUSIVELY IN THE STATE OF DELAWARE. IN THE EVENT THAT THE COURTS OF THE STATE OF DELAWARE DO NOT ACCEPT JURISDICTION OVER ANY SUCH ACTION, THE PARTIES HERETO, HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREE THAT ANY SUCH ACTION THEN SHALL BE BROUGHT EXCLUSIVELY IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE.

8.9 Rules of Construction. The parties hereto agree that they have been represented by counsel during the negotiation and execution of this Agreement and, therefore, waive the application of any Law, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

8.10 Specific Performance. The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that Parent shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, this being in addition to any other remedy to which it is entitled at law or in equity.

8.11 Attorneys' Fees. If any action or other proceeding relating to the enforcement of any provision of this Agreement is brought by any party hereto, the prevailing party shall be entitled to recover reasonable attorneys' fees, costs, and disbursements (in addition to any other relief to which the prevailing party may be entitled).

8.12 Waiver of Conflicts. Each party to this Agreement acknowledges that Goodwin Procter, counsel for Parent, has in the past performed and may continue to perform legal services for the Company in matters unrelated to the transactions described in this Agreement. Accordingly, each party to this Agreement hereby (a) acknowledges that they have had an opportunity to ask for information relevant to this disclosure; and (b) gives its informed consent to Goodwin Procter's representation of the Company in such unrelated matters and to Goodwin Procter's representation of Parent in connection with this Agreement and the transactions contemplated hereby.

8.13 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY AND ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT, OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN NEGOTIATION, ADMINISTRATION, PERFORMANCE OR ENFORCEMENT HEREOF.

ARTICLE 9

DEFINITIONS

9.1 For all purposes of this Agreement, the following terms shall have the following respective meanings:

"Affiliate" shall mean, with respect to any Person, any other Person directly or indirectly through one or more intermediaries controlling, controlled by or under common control with such other Person.

"Business Day" shall mean any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions located in New York, New York are permitted or required by Law to remain closed.

"Code" shall mean the Internal Revenue Code of 1986, as amended.

"Company Capital Stock" shall mean all capital stock of the Company, whether or not issued or outstanding.

"Company Common Stock" shall mean shares of common stock, $0.0001 par value per share, of the Company.

"Company Employee Plan" shall mean any plan, program, policy, practice, Contract or other arrangement providing for compensation, severance, bonus or incentive compensation, termination pay, deferred compensation, performance awards, stock or stock-related awards, retention or change of control bonus, fringe, retirement, death, disability or medical benefits or other employee benefits or remuneration of any kind, whether written, unwritten or otherwise, funded or unfunded (including each "employee benefit plan" within the meaning of Section 3(3) of ERISA) that is or has been maintained, contributed to, or required to be contributed to, by the Company or any ERISA Affiliate for the benefit of any Company Personnel, or with respect to which the Company or any ERISA Affiliate has or is reasonably expected to have any Liability.

"Company Intellectual Property" shall mean any and all Licensed Company Intellectual Property and Owned Company Intellectual Property.

"Company Material Adverse Effect" shall mean any change, event or effect that, individually or taken together with all other adverse changes, events or effects, is, or would reasonably be expected to be, materially adverse to (a) the business, assets (whether tangible or intangible), Liabilities, condition (financial or otherwise), operations, results of operations or capitalization of the Company, taken as a whole, or (b) the Company's ability to consummate the transactions contemplated by this Agreement or to perform its obligations under this Agreement; provided, however, none of the following shall be deemed in and of themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Company Material Adverse Effect: (i) any adverse effect to the extent attributable to the execution of this Agreement or the announcement or pendency of the Merger; (ii) any adverse effect that results from changes affecting the industries in which the Company participates (to the extent that such changes do not disproportionately adversely affect the Company as a whole compared to other firms in the industries in which the Company participates); (iii) changes in applicable legal requirements or GAAP after the date hereof; or (iv) any adverse effect that results from any act of God, any act of terrorism, war or other hostilities, any regional, national or international calamity or any other similar event.

"Company Personnel" shall mean any current or former Employee, consultant or director of the Company including, without limitation, all temporary employees, leased employees or other servants or agents employed or used with respect to the operation of the business of the Company.

"Company Restricted Stock Agreement" shall mean each of the Restricted Stock Agreements by and among the Company and the parties listed on Exhibit A thereto.

"Company SAFE Holders" shall mean holders of outstanding Company SAFEs as of immediately prior to the Effective Time.

"Company SAFEs" shall mean the outstanding Simple Agreements for Future Equity of the Company convertible into Company Stock, as amended.

"Company Stockholders" shall mean the holders of outstanding shares of Company Capital Stock as of immediately prior to the Effective Time.

"Employee" shall mean any current or former employee of the Company.

"Employee Agreement" shall mean each management, employment, severance, consulting, relocation, repatriation, expatriation, visas, work permit or other Contract between the Company and any Company Personnel.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended.

"ERISA Affiliate" shall mean, with respect to a Person, any entity that is or would have ever been considered a single employer with such Person under Section 4001(b) of ERISA or part of the same "controlled group" as such Person for purposes of Section 302(d)(3) of ERISA.

"GAAP" shall mean United States generally accepted accounting principles, consistently applied.

"Indebtedness" shall mean, with respect to any Person (a) all obligations of such Person for borrowed money, whether current or funded, secured or unsecured, (b) all obligations of such Person for the deferred purchase price of any property or services (other than trade accounts payable arising in the ordinary course of the business of such Person), (c) all obligations of such Person secured by a purchase money mortgage or other lien to secure all or part of the purchase price of property subject to such mortgage or lien, (d) all obligations under leases which shall have been or should be, in accordance with GAAP or other generally accepted accounting principles as applicable to such Person, recorded as capital leases in respect of which such Person is liable as lessee, (e) any obligation of such Person in respect of letters of credit or bankers' acceptances, (f) any obligations secured by Liens on property acquired by such Person, whether or not such obligations were assumed by such Person at the time of acquisition of such property, (g) all obligations of a type referred to in clauses (a), (b), (c), (d), (e), or (f) above which is directly or indirectly guaranteed by such Person or which it has agreed (contingently or otherwise) to purchase or otherwise acquire or in respect of which it has otherwise assured a credit against loss, (h) any refinancings of any of the foregoing obligations, (i) any penalties or fees accrued under any of the foregoing, including those resulting from the prepayment or repayment of any of the foregoing obligations, and (j) all accrued interest payable on any of the foregoing obligations.

"Intellectual Property" shall mean any or all of the following: (a) inventions (whether patentable or not), invention disclosures, industrial designs, improvements, Trade Secrets, proprietary information, know how, technology, techniques, processes, technical data and customer lists, and all documentation relating to any of the foregoing; (b) business, technical and know-how information, non-public information, confidential information and rights to limit the use or disclosure thereof by any party; (c) works of authorship (including computer programs, in any form, including source code, object code, or executable code, and whether embodied in

software, firmware or otherwise), architecture, artwork, logo images, documentation, files, records, databases and data collections, schematics, diagrams, application programming interfaces, user interfaces, algorithms, websites, verilog files, netlists, emulation and simulation reports, test vectors and hardware development tools; (d) processes, devices, prototypes, schematics, bread boards, net lists, test methodologies and hardware development tools; and (e) any similar or equivalent property of any of the foregoing.

"Intellectual Property Rights" shall mean any or all of the following and all worldwide common law and statutory rights in, arising out of, or associated therewith: (a) patents and patent applications therefor and all reissues, re-examinations, divisionals, renewals, extensions, provisionals, continuations and continuations-in-part thereof ("Patents"); (b) copyrights, copyrights registrations and applications therefor, and all rights in works of authorship and other rights corresponding thereto throughout the world including moral and economic rights of authors and inventors, however denominated ("Copyrights"); (c) rights in industrial designs and any registrations and applications therefor throughout the world; (d) rights in trade secrets (including, those trade secrets defined in the Uniform Trade Secrets Act and under corresponding foreign statutory and common law), business, technical and know-how information, non-public information, and confidential information and rights to limit the use or disclosure thereof by any person, including cell lines, chemistries, biological materials, compounds, compositions, probes, sequences, biological materials, bioassays, clones, molecules, protocols, reagents, experiments, lab results, concepts, ideas, research and development, business plans, strategies and rights in databases and data collections and all rights therein, in each event, solely to the extent and for the duration it remains confidential and proprietary and not otherwise included in Patents or Copyrights ("Trade Secrets"); (e) rights in mask works, mask work registrations and applications, and all other rights corresponding thereto throughout the world; and (f) any rights similar or equivalent to any of the foregoing.

"IRS" shall mean the United States Internal Revenue Service.

"Knowledge" shall mean (i) with respect to the Company, the knowledge of Peter Smith, after due inquiry, and (ii) with respect to Parent, the knowledge Mark Manfredi, after due inquiry.

"Law" shall mean any law, statute, ordinance, rule, regulation, code, order, judgment, injunction, decree or other provision having the force or effect of law enacted, issued, promulgated, enforced or ordered by a Governmental Entity.

"Liability" shall mean, with respect to any Person, any liability or obligation of such Person of any kind, character or description, whether known or unknown, absolute or contingent, accrued or unaccrued, disputed or undisputed, liquidated or unliquidated, secured or unsecured, joint or several, due or to become due, vested or unvested, executory, determined, determinable or otherwise, and whether or not the same is required to be accrued on the financial statements of such Person.

"Licensed Company Intellectual Property" shall mean all Intellectual Property and Intellectual Property Rights licensed to the Company by third parties.

"Licensed Parent Intellectual Property" shall mean all Intellectual Property and Intellectual Property Rights licensed to Parent by third parties.

"Merger Shares" shall mean 7,863,094 shares of Parent Series A-2 Preferred Stock as the SAFE Consideration, and 3,048,764 shares of Parent Common Stock as the Common Consideration, in each case, issuable in accordance with Sections 1.6(a) and 1.6(b).

"Non-Dissenting Stockholder" shall mean each Company Stockholder that does not perfect such Company Stockholder's appraisal or similar rights under the Delaware Law and is otherwise entitled to receive consideration pursuant to Section 1.6(a) or Section 1.8(f) hereof.

"Owned Company Intellectual Property" shall mean all Intellectual Property and Intellectual Property Rights in which the Company has or purports to have an ownership interest of any nature, whether exclusively, jointly with another person, or otherwise.

"Owned Parent Intellectual Property" shall mean (a) all Intellectual Property and Intellectual Property Rights in Parent Products; and (b) all other Intellectual Property and Intellectual Property Rights in which Parent has or purports to have an ownership interest of any nature, whether exclusively, jointly with another person, or otherwise.

"Parent Charter Documents" shall mean Parent's certificate of incorporation and its bylaws, both as amended and in effect.

"Parent Common Stock" shall mean the common stock, $0.001 par value per share, of Parent.

"Parent Employee Plan" shall mean any plan, program, policy, practice, Contract or other arrangement providing for compensation, severance, bonus or incentive compensation, termination pay, deferred compensation, performance awards, stock or stock-related awards, retention or change of control bonus, fringe, retirement, death, disability or medical benefits or other employee benefits or remuneration of any kind, whether written, unwritten or otherwise, funded or unfunded (including each "employee benefit plan" within the meaning of Section 3(3) of ERISA) that is or has been maintained, contributed to, or required to be contributed to, by Parent or any ERISA Affiliate for the benefit of any Parent Personnel, or with respect to which the Patent or any ERISA Affiliate has or is reasonably expected to have any Liability.

"Parent Intellectual Property" shall mean any and all Licensed Parent Intellectual Property and Owned Parent Intellectual Property.

"Parent Investors' Rights Agreement" shall mean the Amended and Restated Investors' Rights Agreement dated as of the Closing Date by and between Parent and the parties thereto.

"Parent Material Adverse Effect" shall mean any change, event or effect that, individually or taken together with all other adverse changes, events or effects, is, or would reasonably be expected to be, materially adverse to (a) the business, assets (whether tangible or intangible), Liabilities, condition (financial or otherwise), operations, results of operations or capitalization of Parent and its subsidiaries, taken as a whole, or (b) Parent's ability to

consummate the transactions contemplated by this Agreement or to perform its obligations under this Agreement; provided, however, none of the following shall be deemed in and of themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Parent Material Adverse Effect: (i) any adverse effect to the extent attributable to the execution of this Agreement or the announcement or pendency of the Merger; (ii) any adverse effect that results from changes affecting the industries in which Parent participates (to the extent that such changes do not disproportionately adversely affect Parent as a whole compared to other firms in the industries in which Parent participates); (iii) changes in applicable legal requirements or GAAP after the date hereof; or (iv) any adverse effect that results from any act of God, any act of terrorism, war or other hostilities, any regional, national or international calamity or any other similar event.

"Parent Personnel" shall mean any current Employee, consultant or director of Parent including, without limitation, all temporary employees, leased employees or other servants or agents employed or used with respect to the operation of the business of Parent.

"Parent Restricted Stock Agreement" shall mean the Restricted Stock Agreement dated as of the Effective Time by and among Parent and the parties thereto.

"Parent Rights of First Refusal Agreement" shall mean the Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of the Effective Time by and among Parent and the parties thereto.

"Parent Stockholders" shall mean the holders of outstanding shares of capital stock of Parent as of immediately prior to the Effective Time.

"Parent Voting Agreement" shall mean the Amended and Restated Voting Agreement dated as of the Closing Date by and among Parent and the parties thereto.

"Person" shall mean an individual, corporation, partnership, limited liability company, limited liability partnership, syndicate, person, trust, association, organization or other entity, including any Governmental Entity, and including any successor, by merger or otherwise, of any of the foregoing.

"Tax" or, collectively, "Taxes" shall mean (i) any and all federal, state, local and foreign taxes, assessments and other governmental charges, duties, impositions and liabilities, including taxes based upon or measured by gross receipts, income, profits, sales, use and occupation, and value added, ad valorem, transfer, franchise, withholding, payroll, recapture, employment, abandoned and unclaimed and/or escheated property, capital stock, excise, stamp, severance, premium, environmental, profits and property taxes, as well as public imposts, fees and social security charges (including health, unemployment and pension insurance), together with all interest, penalties and additions imposed with respect to such amounts, whether disputed or not.

"Third-Party Expenses" shall mean, with respect to a given Person, obligations that (a) exist under such Person's Contracts, (b) are expressly set forth in and identifiable by reference to the text of such Contracts and (c) are not required to be identified as liabilities in a balance sheet prepared in accordance with GAAP.

"Total Fully Diluted Shares" shall mean, as of the Effective Time, the sum (without duplication) obtained by adding: (a) the aggregate number of outstanding shares of Company Common Stock; plus (b) the aggregate number of shares of Company Common Stock that would be issuable upon the conversion of the outstanding shares of Company Series A Preferred Stock.

9.2 Each of the following defined terms has the meaning given such term in the Section set forth opposite such defined term:[1]

Term	Section
Agreement	Preamble
Authorized Company Representative	Section 6.2(j)
Certificate of Merger	Section 1.2
Certificates	Section 1.8(b)
Closing	Section 1.2
Closing Date	Section 1.2
Common Consideration	Section 1.6(a)(ii)
Company	Preamble
Company Charter Documents	Section 2.1
Company Financial Statements	Section 2.7(a)
Company Interested Person	Section 2.13(a)
Company Schedule of Exceptions	Preamble to Article 2
Confidential Information	Section 5.12(a)
Conflict	Section 2.5
Contract(s)	Section 2.5
Copyrights	Section 9.1
Current Company Balance Sheet	Section 2.7(a)
Current Parent Balance Sheet	Section 3.5(a)
Delaware Law	Section 1.1
Disclosing Party	Section 5.12(a)
Dissenting Shares	Section 1.7(a)
Effective Time	Section 1.2
End Date	Section 7.1(b)
Governmental Entity	Section 2.6
Key Company Employees	Section 5.13
Liens	Section 2.9(a)(viii)
Merger	Recitals A
Merger Sub	Preamble
Outstanding Parent Options	Section 3.7(c)
Parent	Preamble
Parent 2016 Option Plan	Section 3.7(b)
Parent Financial Statements	Section 3.5(a)
Parent Interested Person	Section 3.13(a)
Parent Restated Charter	Section 6.3(d)
Parent Schedule of Exceptions	Preamble to Article 3

[1] **Note to Draft**: To be updated**.**

Term	Section
Parent Series A Preferred Stock	Section 3.7(a)
Parent Series A-1 Preferred Stock	Section 3.7(a)
Parent Series A-2 Preferred Stock	Section 3.7(a)
Patents	Section 9.1
Personal Information	Section 2.20
Receiving Party	Section 5.12(a)
Returns	Section 2.9(a)(i)
SAFE Consideration	Section 1.6(a)(i)
Specified Contract	Section 2.12
Spreadsheet	Section 5.8
Stockholder Consent	Recitals G
Stockholder Representative	Preamble
Surviving Corporation	Section 1.1
Trade Secrets	Section 9.1
Transaction Documents	Section 5.12(a)

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, Parent, Merger Sub, the Company and the Stockholder Representative have caused this Agreement to be signed, all as of the date first written above.

PARENT:

IKENA ONCOLOGY, INC.

By: /s/ Mark Manfredi
Name: Mark Manfredi
Title: President and Chief Executive Officer

MERGER SUB:

AMI MERGER SUB, INC.

By: /s/ Mark Manfredi
Name: Mark Manfredi
Title: President

[Signature Page to Agreement and Plan of Merger]

IN WITNESS WHEREOF, Parent, Merger Sub, the Company and the Stockholder Representative have caused this Agreement to be signed, all as of the date first written above.

COMPANY:

AMPLIFY MEDICINES, INC.

By: /s/ Kevin Bitterman
Name: Kevin Bitterman
Title: President

[Signature Page to Agreement and Plan of Merger]

IN WITNESS WHEREOF, Parent, Merger Sub, the Company and the Stockholder Representative have caused this Agreement to be signed, all as of the date first written above.

STOCKHOLDER REPRESENTATIVE:

ATLAS VENTURE FUND XI, L.P.

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

[Signature Page to Agreement and Plan of Merger]

Schedule 1.6

Parent Stock

[***]

Schedule 5.13

Key Company Employees

[***]

Schedule 6.2(e)

Third-Party Consents

Schedule 6.2(f)

Agreements to be Terminated

[***]

Schedule 6.2(g)

Agreements to be Amended

2016 STOCK INCENTIVE PLAN

OF

KYN THERAPEUTICS INC.

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2016 STOCK INCENTIVE PLAN
OF
KYN THERAPEUTICS INC.

1. Purpose

The purpose of this 2016 Stock Incentive Plan (the "**Plan**") of Kyn Therapeutics Inc., a Delaware corporation (the "**Company**"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align the interests of such persons with those of the Company's stockholders. Except where the context otherwise requires, the term "**Company**" shall include any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations thereunder (the "**Code**") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "**Board**"); *provided, however*, that such other business ventures shall be limited to entities that, where required by Section 409A of the Code, are eligible issuers of service recipient stock (as defined in Treas. Reg. Section 1.409A-1(b)(5)(iii)(E), or applicable successor regulation).

2. Eligibility

All of the Company's employees, officers and directors, as well as consultants and advisors to the Company (as such terms consultants and advisors are defined and interpreted for purposes of Rule 701 under the Securities Act of 1933, as amended (the "**Securities Act**") (or any successor rule)) are eligible to be granted Awards under the Plan. Each person who is granted an Award under the Plan is deemed a "**Participant**." "**Award**" means Options (as defined in Section 5), SARs (as defined in Section 6), Restricted Stock (as defined in Section 7), Restricted Stock Units (as defined in Section 7) and Other Stock-Based Awards (as defined in Section 8).

3. Administration and Delegation

(a) Administration by the Board. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may construe and interpret the terms of the Plan and any Award agreements entered into under the Plan. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (each, a "**Committee**"). All references in the Plan to the "**Board**" shall mean the Board or a Committee of the Board to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

4. Stock Available for Awards

(a) Number of Shares. Subject to adjustment under Section 9, Awards may be made under the Plan for up to 2,454,545 shares of common stock, $0.001 par value per share, of the Company (the "**Common Stock**"), any or all of which Awards may be in the form of Incentive Stock Options (as defined in Section 5(b)). If any Award expires or is terminated, surrendered or canceled without having been fully exercised, is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right), or results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. Further, shares of Common Stock tendered to the Company by a Participant to exercise an Award or to satisfy tax withholding obligations arising with respect to an Award shall be added to the number of shares of Common Stock available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options, the two immediately preceding sentences shall be subject to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "**Option**") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable.

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "**Incentive Stock Option**") shall only be granted to employees of Kyn Therapeutics Inc., any of Kyn Therapeutic Inc.'s present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. An Option that is not intended to be an Incentive Stock Option shall be designated a "**Nonstatutory Stock Option**." The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or if the Company converts an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify the exercise price in the applicable Option agreement. The exercise price shall be not less than 100% of the fair market value per share of Common Stock, as determined by (or in a manner approved by) the Board ("**Fair Market Value**"), on the date the Option is granted. "**Fair Market Value**" of a share of Common Stock for purposes of the Plan will be determined as follows:

(1) if the Common Stock is not publicly traded, the Board will determine the Fair Market Value for purposes of the Plan using any measure of value it determines to be appropriate (including, as it considers appropriate, relying on appraisals) in a manner consistent with the valuation principles under Code Section 409A, except as the Board may expressly determine otherwise;

(2) if the Common Stock trades on a national securities exchange, the closing sale price (for the primary trading session) on the date of grant; or

(3) if the Common Stock does not trade on any such exchange, the average of the closing bid and asked prices as reported by an authorized OTCBB market data vendor as listed on the OTCBB website (otcbb.com) on the date of grant.

For any date that is not a trading day, the Fair Market Value of a share of Common Stock for such date will be determined by using the closing sale price or average of the bid and asked prices, as appropriate, for the immediately preceding trading day and with the timing in the formulas above adjusted accordingly. The Board can substitute a particular time of day or other measure of "closing sale price" or "bid and asked prices" if appropriate because of exchange or market procedures or can, in its sole discretion, use weighted averages either on a daily basis or such longer period as complies with Code Section 409A.

The Board has sole discretion to determine the Fair Market Value for purposes of the Plan, and all Awards are conditioned on the participants' agreement that the Board's determination is conclusive and binding even though others might make a different determination.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; *provided*, *however*, that no Option will be granted with a term in excess of 10 years.

(e) Exercise of Options.

Options may be exercised by delivery to the Company of a notice of exercise in a form of notice (which may be electronic) approved by the Company, together with payment in full (in a manner specified in Section 5(f)) of the exercise price for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company as soon as practicable following exercise.

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) when the Common Stock is registered under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), except as may otherwise be provided in the applicable Option agreement or approved by the Board, in its sole discretion, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) when the Common Stock is registered under the Exchange Act and to the extent provided for in the applicable Option agreement or approved by the Board, in its sole discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their Fair Market Value, *provided* (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent provided for in the applicable Nonstatutory Stock Option agreement or approved by the Board in its sole discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would pay the exercise price for the portion of the Option being exercised by cancelling a portion of the Option for such number of shares as is equal to the exercise price divided by the excess of the Fair Market Value on the date of exercise over the Option exercise price per share.

(5) to the extent permitted by applicable law and provided for in the applicable Option agreement or approved by the Board, in its sole discretion, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

6. Stock Appreciation Rights

(a) General. The Board may grant Awards consisting of stock appreciation rights ("**SARs**") entitling the holder, upon exercise, to receive an amount of Common Stock or cash or a combination thereof (such form to be determined by the Board) determined by reference to appreciation, from and after the date of grant, in the Fair Market Value of a share of Common Stock over the measurement price established pursuant to Section 6(b). The date as of which such appreciation is determined shall be the exercise date.

(b) Measurement Price. The Board shall establish the measurement price of each SAR and specify it in the applicable SAR agreement. The measurement price shall not be less than 100% of the Fair Market Value on the date the SAR is granted.

(c) Duration of SARs. Each SAR shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable SAR agreement; provided, however, that no SAR will be granted with a term in excess of 10 years.

(d) Exercise of SARs. SARs may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with any other documents required by the Board.

7. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock ("**Restricted Stock**"), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. The Board may also grant Awards entitling the recipient to receive shares of Common Stock or cash to be delivered at the time such Award vests ("**Restricted Stock Units**") (Restricted Stock and Restricted Stock Units are each referred to herein as a "**Restricted Stock Award**").

(b) Terms and Conditions for All Restricted Stock Awards. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for vesting and repurchase (or forfeiture) and the issue price, if any.

(c) Additional Provisions Relating to Restricted Stock.

(1) Dividends. Unless otherwise provided in the applicable Award agreement, any dividends (whether paid in cash, stock or property) declared and paid by the Company with respect to shares of Restricted Stock ("**Accrued Dividends**") shall be paid to the Participant only if and when such shares become free from the restrictions on transferability and forfeitability that apply to such shares. Each payment of Accrued Dividends will be made no later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the lapsing of the restrictions on transferability and the forfeitability provisions applicable to the underlying shares of Restricted Stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of shares of Restricted Stock, as well as dividends or distributions paid on such Restricted Stock, shall be deposited in escrow by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to Participant's Designated Beneficiary. "**Designated Beneficiary**" means (i) the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death or (ii) in the absence of an effective designation by a Participant, "**Designated Beneficiary**" means the Participant's estate.

(d) Additional Provisions Relating to Restricted Stock Units.

(1) Settlement. Upon the vesting of and/or lapsing of any other restrictions (i.e., settlement) with respect to each Restricted Stock Unit, the Participant shall be entitled to receive from the Company one share of Common Stock or (if so provided in the applicable Award agreement) an amount of cash equal to the Fair Market Value of one share of Common Stock. The

Board may, in its discretion, provide that settlement of Restricted Stock Units shall be deferred, on a mandatory basis or at the election of the Participant in a manner that complies with Section 409A of the Code.

(2) Voting Rights. A Participant shall have no voting rights with respect to any Restricted Stock Units.

(3) Dividend Equivalents. The Award agreement for Restricted Stock Units may provide Participants with the right to receive an amount equal to any dividends or other distributions declared and paid on an equal number of outstanding shares of Common Stock ("**Dividend Equivalents**"). Dividend Equivalents may be paid currently or credited to an account for the Participants, may be settled in cash and/or shares of Common Stock and may be subject to the same restrictions on transfer and forfeitability as the Restricted Stock Units with respect to which paid, in each case to the extent provided in the applicable Award agreement.

8. Other Stock-Based Awards

(a) General. Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants ("**Other Stock-Based Awards**"). Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock or cash, as the Board shall determine.

(b) Terms and Conditions. Subject to the provisions of the Plan, the Board shall determine the terms and conditions of each Other Stock-Based Award, including any purchase price applicable thereto.

9. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under the Plan, (ii) the number and class of securities and exercise price per share of each outstanding Option, (iii) the share and per-share provisions and the measurement price of each outstanding SAR, (iv) the number of shares subject to and the repurchase price per share subject to each outstanding Restricted Stock Award and (v) the share and per-share-related provisions and the purchase price, if any, of each outstanding Other Stock-Based Award, shall be equitably adjusted by the Company (or substituted Awards may be made, if applicable) in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Reorganization Events.

(1) Definition. A "**Reorganization Event**" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any transfer or disposition of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock.

(i) In connection with a Reorganization Event, the Board may take any one or more of the following actions as to all or any (or any portion of) outstanding Awards other than Restricted Stock on such terms as the Board determines (except to the extent specifically provided otherwise in an applicable Award agreement or another agreement between the Company and the Participant): (i) provide that such Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that all of the Participant's unexercised Awards will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant (to the extent then exercisable) within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become exercisable, realizable, or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "**Acquisition Price**"), make or provide for a cash payment to Participants with respect to each Award held by a Participant equal to (A) the number of shares of Common Stock subject to the vested portion of the Award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such Reorganization Event) multiplied by (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise, measurement or purchase price of such Award and any applicable tax withholdings, in exchange for the termination of such Award, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 9(b)(2), the Board shall not be obligated by the Plan to treat all Awards, all Awards held by a Participant, or all Awards of the same type, identically.

(ii) Notwithstanding the terms of Section 9(b)(2)(i), in the case of outstanding Restricted Stock Units that are subject to Section 409A of the Code: (i) if the applicable Restricted Stock Unit agreement provides that the Restricted Stock Units shall be settled upon a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i), and the Reorganization Event constitutes such a "change in control event", then no assumption or substitution shall be permitted pursuant to Section 9(b)(2)(i)(i) and the Restricted

Stock Units shall instead be settled in accordance with the terms of the applicable Restricted Stock Unit agreement; and (ii) the Board may only undertake the actions set forth in clauses (iii), (iv) or (v) of Section 9(b)(2)(i) if the Reorganization Event constitutes a "change in control event" as defined under Treasury Regulation Section 1.409A-3(i)(5)(i) and such action is permitted or required by Section 409A of the Code; if the Reorganization Event is not a "change in control event" as so defined or such action is not permitted or required by Section 409A of the Code, and the acquiring or succeeding corporation does not assume or substitute the Restricted Stock Units pursuant to clause (i) of Section 9(b)(2)(i), then the unvested Restricted Stock Units shall terminate immediately prior to the consummation of the Reorganization Event without any payment in exchange therefor.

(iii) For purposes of Section 9(b)(2)(i)(i), an Award (other than Restricted Stock) shall be considered assumed if, following consummation of the Reorganization Event, such Award confers the right to purchase or receive pursuant to the terms of such Award, for each share of Common Stock subject to the Award immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); *provided, however*, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise or settlement of the Award to consist solely of such number of shares of common stock of the acquiring or succeeding corporation (or an affiliate thereof) that the Board determined to be equivalent in value (as of the date of such determination or another date specified by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

(3) Consequences of a Reorganization Event on Restricted Stock. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company with respect to outstanding Restricted Stock shall inure to the benefit of the Company's successor and shall, unless the Board determines otherwise, apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to such Restricted Stock; *provided, however*, that the Board may provide for termination or deemed satisfaction of such repurchase or other rights under the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, either initially or by amendment. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards.

(a) Transferability of Awards. Awards (or any interest in an Award, including, prior to exercise, any interest in shares of Common Stock issuable upon exercise of an Option or SAR) shall not be sold, assigned, transferred (including by establishing any short position, put equivalent position (as defined in Rule 16a-1 issued under the Exchange Act) or call equivalent position (as defined in Rule 16a-1 issued under the Exchange Act)), pledged, hypothecated or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, and, during the life of the Participant, shall be exercisable only by the Participant; except that Awards, other than Awards subject to Section 409A of the Code, may be transferred to family members (as defined in Rule 701(c)(3) under the Securities Act) through gifts or (other than Incentive Stock Options) domestic relations orders or to an executor or guardian upon the death of the Participant. The Company shall not be required to recognize any such permitted transfer until such time as such permitted transferee shall deliver to the Company a written instrument, as a condition to such transfer, in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees. For the avoidance of doubt, nothing contained in this Section 10(a) shall be deemed to restrict a transfer to the Company.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, termination or other cessation of employment, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. The Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock certificates or otherwise recognize ownership of Common Stock under an Award. The Company may decide to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, the Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise, vesting or release from forfeiture of an Award or at the same time as payment of the exercise or purchase price unless the Company determines otherwise. If provided for in an Award or approved by the Board in its sole discretion, a Participant may satisfy such tax obligations in whole or in part by delivery (either by actual delivery or attestation) of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; provided, however, except as

otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares used to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award.

(1) The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option. The Participant's consent to such action shall be required unless (i) the Board determines that the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Plan or (ii) the change is permitted under Section 9.

(2) The Board may, without stockholder approval, amend any outstanding Award granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Award. The Board may also, without stockholder approval, cancel any outstanding award (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled award.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously issued or delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and regulations and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

11. Miscellaneous.

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award by virtue of the adoption of the Plan, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the expiration of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time; provided that if at any time the approval of the Company's stockholders is required as to any modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Plan adopted in accordance with this Section 11(d) shall apply to, and be binding on the holders of, all Awards outstanding under the Plan at the time the amendment is adopted, provided the Board determines that such amendment, taking into account any related action, does not materially and adversely affect the rights of Participants under the Plan.

(e) Authorization of Sub-Plans (including Grants to non-U.S. Employees). The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable securities, tax or other laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to the Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Compliance with Section 409A of the Code. Except as provided in individual Award agreements initially or by amendment, if and to the extent (i) any portion of any payment, compensation or other benefit provided to a Participant pursuant to the Plan in connection with Participant's employment termination constitutes "nonqualified deferred compensation" within the meaning of Section 409A of the Code and (ii) the Participant is a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, in each case as determined by the Company in accordance with its procedures, by which determinations the Participant (through accepting the Award) agrees that the Participant is bound, such portion of the payment, compensation or other benefit shall not be paid before the day that is six months plus one day after the date of "separation from service" (as determined under Section 409A of the Code) (the "**New Payment Date**"), except as Section 409A of the Code may then permit. The aggregate of any payments that otherwise would have been paid to the Participant during the period between the date of separation from service and the New Payment Date shall be paid to the Participant in a lump sum on such New Payment Date, and any remaining payments will be paid on their original schedule.

The Company makes no representations or warranty and shall have no liability to the Participant or any other person if any provisions of or payments, compensation or other benefits under the Plan are determined to constitute nonqualified deferred compensation subject to Section 409A of the Code but do not to satisfy the conditions of that section.

(g) Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, other employee, or agent of the Company will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan, nor will such individual be personally liable with respect to the Plan because of any contract or other instrument such individual executes in such individual's capacity as a director, officer, other employee, or agent of the Company. The Company will indemnify and hold harmless each director, officer, other employee, or agent of the Company to whom any duty or power relating to the administration or interpretation of the Plan has been or will be delegated, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Board's approval) arising out of any act or omission to act concerning the Plan unless arising out of such person's own fraud or bad faith.

(h) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than the State of Delaware.

* * * *

Kyn Therapeutics Inc.
2016 Stock Incentive Plan

CALIFORNIA SUPPLEMENT

Pursuant to Section 11(e) of the Plan, the Board has adopted this supplement for purposes of satisfying the requirements of Section 25102(o) of the California Law:

Any Awards granted under the Plan to a Participant who is a resident of the State of California on the date of grant (a "***California Participant***") shall be subject to the following additional limitations, terms and conditions:

1. Additional Limitations on Options.

(a) Maximum Duration of Options. No Options granted to California Participants shall have a term in excess of 10 years measured from the Option grant date.

(b) Minimum Exercise Period Following Termination. Unless a California Participant's employment is terminated for cause (as defined by applicable law, the terms of the Plan or option grant or a contract of employment), in the event of termination of employment of such Participant, such Participant shall have the right to exercise an Option, to the extent that such Participant is entitled to exercise such Option on the date employment terminated, until the earlier of: (i) at least six months from the date of termination, if termination was caused by such Participant's death or disability, (ii) at least 30 days from the date of termination, if termination was caused other than by such Participant's death or disability and (iii) the Option expiration date.

2. Additional Limitations for Other Stock-Based Awards. The terms of all Awards granted to a California Participant under Section 8 of the Plan shall comply, to the extent applicable, with Sections 260.140.42, 260.140.45 and 260.140.46 of the California Code of Regulations.

3. Additional Limitations on Timing of Awards. No Award granted to a California Participant shall become exercisable, vested or realizable, as applicable to such Award, unless the Plan has been approved by the holders of a majority of the Company's outstanding voting securities by the later of (i) within 12 months before or after the date the Plan was adopted by the Board, or (ii) prior to or within 12 months of the granting of any Award to a California Participant.

4. Additional Restriction Regarding Recapitalizations, Stock Splits, Etc. For purposes of Section 9 of the Plan, in the event of a stock split, reverse stock split, stock dividend, recapitalization, combination, reclassification or other distribution of the Company's securities underlying the Award without the receipt of consideration by the Company, the number of securities purchasable, and in the case of Options, the exercise price of such Options, must be proportionately adjusted.

5. Additional Limitations on Transferability of Awards. Notwithstanding the provisions of Section 10(a) of the Plan, an Award granted to a California Participant may not be transferred to an executor or guardian upon the disability of the Participant.

KYN THERAPEUTICS INC.

INCENTIVE STOCK OPTION AGREEMENT
GRANTED UNDER 2016 STOCK INCENTIVE PLAN

1. Grant of Option.

This Incentive Stock Option Agreement (the "**Agreement**") evidences the grant by Kyn Therapeutics Inc., a Delaware corporation (the "**Company**"), on [, 20] (the "**Grant Date**") to [ ], an employee of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's 2016 Stock Incentive Plan (the "**Plan**"), a total of [ ] shares (the "**Shares**") of common stock, $0.001 par value per share, of the Company ("**Common Stock**") at $[ ] per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern time, on [, 20] [date is ten years minus one day from grant date] (the "**Final Exercise Date**").

It is intended that the option evidenced by this Agreement shall be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "**Code**"). Except as otherwise indicated by the context, the term "**Participant**", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

2. Vesting Schedule.

This option will become exercisable ("**vest**") as to 25% of the original number of Shares on the first anniversary of the Vesting Commencement Date (as defined below) and as to an additional 2.0833% of the original number of Shares at the end of each successive month following the first anniversary of the Vesting Commencement Date until the fourth anniversary of the Vesting Commencement Date. On the fourth anniversary of the Vesting Commencement Date, this option will be exercisable as to all Shares. For purposes of this Agreement, "**Vesting Commencement Date**" shall mean [ ].

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be accompanied by a completed Notice of Stock Option Exercise in the form attached hereto as Exhibit A, signed by the Participant, and received by the Company at its principal office, accompanied by this Agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he

or she exercises this option, is, and has been at all times since the Grant Date, an employee or officer of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an "**Eligible Participant**").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant's employment is terminated by the Company for Cause (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such termination of employment. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his or her employment by the Company for Cause, and the effective date of such employment termination is subsequent to the date of delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's employment shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination of employment (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate upon the effective date of such termination of employment). If the Participant is party to an employment or severance agreement with the Company that contains a definition of "cause" for termination of employment, "Cause" shall have the meaning ascribed to such term in such agreement. Otherwise, "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant's employment shall be considered to have been terminated for Cause if the Company determines, within 30 days after the Participant's resignation, that termination for Cause was warranted.

4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, "transfer") any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the "**Transfer Notice**") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "Offered Shares"), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"); and

(3) the sale of all or substantially all of the outstanding shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Company's voting securities immediately prior to such transaction beneficially own, directly or indirectly, more than 50% (determined on an as-converted basis) of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(h) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(i) Superseding ROFR Provision. Notwithstanding the provisions of subsections 4(a) through 4(h) above, if at any time the Participant and the Company are parties to a separate agreement containing a right of first refusal provision in favor of the Company that applies to transfers of the Shares (a "**Superseding ROFR Provision**"), the terms of such Superseding ROFR Provision will control in lieu of those of subsections 4(a) through 4(h) above and compliance with such Superseding ROFR Provision shall be deemed compliance with subsections 4(a) through 4(h) above.

(j) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

> "The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company."

5. Agreement in Connection with Initial Public Offering.

The Participant agrees not to, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Company's initial public offering (the "**IPO**") of Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1 or Form S-3, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (l80) days in the case of the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports; and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), or ninety (90) days in the case of any registration other than the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (a) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any Shares or other shares of the Company's capital stock (the "**Capital Stock**") (whether such shares or any such securities are then owned by the Participant or are thereafter acquired); or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Capital Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Capital Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 5 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Participant or the family members of the Participant, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein.

6. Tax Matters.

(a) Withholding. No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

(b) Disqualifying Disposition. If the Participant disposes of Shares acquired upon exercise of this option within two years from the Grant Date or one year after such Shares were acquired pursuant to exercise of this option, the Participant shall notify the Company in writing of such disposition.

7. Transfer Restrictions.

(a) This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

(b) The Participant agrees that he or she will not transfer any Shares issued pursuant to the exercise of this option unless the transferee, as a condition to such transfer, delivers to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of Section 4 and Section 5; provided that such a written confirmation shall not be required with respect to (1) Section 4 after such provision has terminated in accordance with Section 4(g) or (2) Section 5 after the completion of the lock-up period in connection with the Company's initial underwritten public offering.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is furnished to the Participant with this option.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written. The Participant hereby accepts the foregoing option and agrees to the terms and conditions thereof. The Participant hereby acknowledges receipt of a copy of the Company's 2016 Stock Incentive Plan.

COMPANY:

Kyn Therapeutics Inc.

By: _____
Name:
Title:

PARTICIPANT:

By: _____
[Name]

Address: [ ]
[ ]

SPOUSAL CONSENT:[1]

By: _____
Name:

Address: [ ]
[ ]

1 If the Participant resides in a community property state, it is desirable to have the Participant's spouse also accept the option. The following are community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, and Washington. Although Wisconsin is not formally a community property state, it has laws governing the division of marital property similar to community property states and it may be desirable to have a Wisconsin Participant's spouse accept the option.

EXHIBIT A

NOTICE OF STOCK OPTION EXERCISE

[DATE][1]

Kyn Therapeutics Inc.
6405 Williams Ridge Way
Austin, TX 78731

Attention: Treasurer

Dear Sir or Madam:

I am the holder of a Nonstatutory Stock Option granted to me under the Kyn Therapeutics Inc. (the "**Company**") 2016 Stock Incentive Plan on [ ][2] for the purchase of [ ][3] shares of Common Stock of the Company at a purchase price of $[ ][4] per share.

I hereby exercise my option to purchase [ ][5] shares of Common Stock (the "**Shares**"), for which I have enclosed [ ][6] in the amount of [ ][7]. Please register my stock certificate as follows:

Name(s): _____[8]

_____

Address: _____

_____

I represent, warrant and covenant as follows:

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1 Enter date of exercise.
2 Enter the date of grant.
3 Enter the total number of shares of Common Stock for which the option was granted.
4 Enter the option exercise price per share of Common Stock.
5 Enter the number of shares of Common Stock to be purchased upon exercise of all or part of the option.
6 Enter "cash", "personal check" or if permitted by the option or Plan, "stock certificates No. XXXX and XXXX".
7 Enter the dollar amount (price per share of Common Stock times the number of shares of Common Stock to be purchased), or the number of shares tendered. Fair market value of shares tendered, together with cash or check, must cover the purchase price of the shares issued upon exercise.
8 Enter name(s) to appear on stock certificate in one of the following formats: (a) your name only (i.e., John Doe); (b) your name and other name (i.e., John Doe and Jane Doe, Joint Tenants with Right to Survivorship); or for Nonstatutory Stock Options only, (c) a child's name, with you as custodian (i.e., Jane Doe, Custodian for Tommy Doe). Note: There may be income and/or gift tax consequences for registering shares in a child's name.

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "**Securities Act**"), or any rule or regulation under the Securities Act.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.

3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.

5. I understand that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

Very truly yours,

_____

[Name]

KYN THERAPEUTICS INC.

NONSTATUTORY STOCK OPTION AGREEMENT
GRANTED UNDER 2016 STOCK INCENTIVE PLAN

1. Grant of Option.

This Nonstatutory Stock Option Agreement (the "**Agreement**") evidences the grant by Kyn Therapeutics Inc., a Delaware corporation (the "**Company**"), on [, 20] (the "**Grant Date**") to [ ], an employee, consultant or director of the Company (the "**Participant**"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's 2016 Stock Incentive Plan (the "**Plan**"), a total of [ ] shares (the "**Shares**") of common stock, $0.001 par value per share, of the Company ("**Common Stock**") at $[ ] per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern time, on [, 20] [date is ten years minus one day from grant date] (the "**Final Exercise Date**").

It is intended that the option evidenced by this Agreement shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "**Code**"). Except as otherwise indicated by the context, the term "**Participant**", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

2. Vesting Schedule.

This option will become exercisable ("**vest**") as to 25% of the original number of Shares on the first anniversary of the Vesting Commencement Date (as defined below) and as to an additional 2.0833% of the original number of Shares at the end of each successive month following the first anniversary of the Vesting Commencement Date until the fourth anniversary of the Vesting Commencement Date. On the fourth anniversary of the Vesting Commencement Date, this option will be exercisable as to all Shares. For purposes of this Agreement, "**Vesting Commencement Date**" shall mean [ ].

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be accompanied by a completed Notice of Stock Option Exercise in the form attached hereto as Exhibit A, signed by the Participant, and received by the Company at its principal office, accompanied by this Agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee, officer or director of, or consultant or advisor to, the Company or any other entity the employees, officers, directors, consultants, or advisors of which are eligible to receive option grants under the Plan (an "**Eligible Participant**").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant's employment or other relationship with the Company is terminated by the Company for Cause (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such termination of employment or other relationship. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his or her employment or other relationship by the Company for Cause, and the effective date of such employment or other termination is subsequent to the date of the delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's employment or other relationship shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination of employment or other relationship (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate immediately upon the effective date of such termination of employment or other relationship). If the Participant is party to an employment, consulting or severance agreement with the Company that contains a definition of "cause" for termination of employment or other relationship, "Cause" shall have the meaning ascribed to such term in such agreement. Otherwise, "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The

Participant's employment or other relationship shall be considered to have been terminated for "Cause" if the Company determines, within 30 days after the Participant's resignation, that termination for Cause was warranted.

4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, "transfer") any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the "**Transfer Notice**") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "**Offered Shares**"), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"); and

(3) the sale of all or substantially all of the outstanding shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Company's voting securities immediately prior to such transaction beneficially own, directly or indirectly, more than 50% (determined on an as-converted basis) of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(h) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(i) Superseding ROFR Provision. Notwithstanding the provisions of subsections 4(a) through 4(h) above, if at any time the Participant and the Company are parties to a separate agreement containing a right of first refusal provision in favor of the Company that applies to transfers of the Shares (a "**Superseding ROFR Provision**"), the terms of such Superseding ROFR Provision will control in lieu of those of subsections 4(a) through 4(h) above and compliance with such Superseding ROFR Provision shall be deemed compliance with subsections 4(a) through 4(h) above.

(j) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

> "The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company."

5. Agreement in Connection with Initial Public Offering.

The Participant agrees not to, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Company's initial public offering (the "**IPO**") of Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1 or Form S-3, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (l80) days in the case of the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports; and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), or ninety (90) days in the case of any registration other than the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (a) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any Shares or other shares of the Company's capital stock (the "**Capital Stock**") (whether such shares or any such securities are then owned by the Participant or are thereafter acquired); or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Capital Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Capital Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 5 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Participant or the family members of the Participant, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein.

6. Withholding.

No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

7. Transfer Restrictions.

(a) This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

(b) The Participant agrees that he or she will not transfer any Shares issued pursuant to the exercise of this option unless the transferee, as a condition to such transfer, delivers to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of Section 4 and Section 5; provided that such a written confirmation shall not be required with respect to (1) Section 4 after such provision has terminated in accordance with Section 4(g) or (2) Section 5 after the completion of the lock-up period in connection with the Company's initial underwritten public offering.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is furnished to the Participant with this option.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written. The Participant hereby accepts the foregoing option and agrees to the terms and conditions thereof. The Participant hereby acknowledges receipt of a copy of the Company's 2016 Stock Incentive Plan.

COMPANY:

Kyn Therapeutics Inc.

By: _____
Name: _____
Title: _____

PARTICIPANT:

By: _____
[Name]
Address: [ ]
[ ]

SPOUSAL CONSENT:[10]
By: _____
Name:
Address: [ ]
[ ]

10 If the Participant resides in a community property state, it is desirable to have the Participant's spouse also accept the option. The following are community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, and Washington. Although Wisconsin is not formally a community property state, it has laws governing the division of marital property similar to community property states and it may be desirable to have a Wisconsin Participant's spouse accept the option.

EXHIBIT A

NOTICE OF STOCK OPTION EXERCISE

[DATE][1]

Kyn Therapeutics Inc.
6405 Williams Ridge Way
Austin, TX 78731

Attention: Treasurer

Dear Sir or Madam:

I am the holder of an Incentive Stock Option granted to me under the Kyn Therapeutics Inc. (the "**Company**") 2016 Stock Incentive Plan on [ ][2] for the purchase of [ ][3] shares of Common Stock of the Company at a purchase price of $[ ][4] per share.

I hereby exercise my option to purchase [ ][5] shares of Common Stock (the "**Shares**"), for which I have enclosed [ ][6] in the amount of [ ][7]. Please register my stock certificate as follows:

Name(s): _____[8]

_____

Address: _____

_____

I represent, warrant and covenant as follows:

---

1 Enter date of exercise.
2 Enter the date of grant.
3 Enter the total number of shares of Common Stock for which the option was granted.
4 Enter the option exercise price per share of Common Stock.
5 Enter the number of shares of Common Stock to be purchased upon exercise of all or part of the option.
6 Enter "cash", "personal check" or if permitted by the option or Plan, "stock certificates No. XXXX and XXXX".
7 Enter the dollar amount (price per share of Common Stock times the number of shares of Common Stock to be purchased), or the number of shares tendered. Fair market value of shares tendered, together with cash or check, must cover the purchase price of the shares issued upon exercise.
8 Enter name(s) to appear on stock certificate in one of the following formats: (a) your name only (i.e., John Doe); (b) your name and other name (i.e., John Doe and Jane Doe, Joint Tenants with Right to Survivorship); or for Nonstatutory Stock Options only, (c) a child's name, with you as custodian (i.e., Jane Doe, Custodian for Tommy Doe). Note: There may be income and/or gift tax consequences for registering shares in a child's name.

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "**Securities Act**"), or any rule or regulation under the Securities Act.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.

3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.

5. I understand that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

Very truly yours,

_____

[Name]

**[NOTE: UNLESS THE SHARES ARE FULLY VESTED UPON GRANT,
IT IS GENERALLY ADVISABLE FOR THE PARTICIPANT TO FILE 83(B) ELECTION.]**

KYN THERAPEUTICS INC.

**RESTRICTED STOCK AGREEMENT
GRANTED UNDER 2016 STOCK INCENTIVE PLAN**

This Restricted Stock Agreement (the "**Agreement**") is made this [ ] day of [ ], 20[ ], between Kyn Therapeutics Inc., a Delaware corporation (the "**Company**"), and [ ] (the "**Participant**").

For valuable consideration, receipt of which is acknowledged, the parties hereto agree as follows:

1. Purchase of Shares.

The Company shall issue and sell to the Participant, and the Participant shall purchase from the Company, subject to the terms and conditions set forth in this Agreement and in the Company's 2016 Stock Incentive Plan (the "**Plan**"), [ ] shares (the "**Shares**") of common stock, $0.001 par value, of the Company ("**Common Stock**"), at a purchase price of $[ ] per share. The aggregate purchase price for the Shares shall be paid by the Participant by check payable to the order of the Company or such other method as may be acceptable to the Company. Upon receipt by the Company of payment for the Shares, the Company shall issue to the Participant one or more certificates in the name of the Participant for that number of Shares purchased by the Participant. The Participant agrees that the Shares shall be subject to the purchase options set forth in Sections 3 and 6 of this Agreement and the restrictions on transfer set forth in Section 5 of this Agreement.

2. Certain Definitions.

(a) "**Change in Control**" shall mean the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Company's voting securities immediately prior to such transaction beneficially own, directly or indirectly, more than 50% (determined on an as-converted basis) of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(b) "**Service**" shall mean employment by or the provision of services to the Company or a parent or subsidiary thereof as an advisor, officer, consultant or member of the Board of Directors.

(c) "**Vesting Commencement Date**" shall mean [ ].

3. Purchase Option.

(a) In the event that the Participant ceases to provide Service for any reason or no reason, with or without cause, prior to the [fourth (4th)] anniversary of the Vesting Commencement Date, the Company shall have the right and option (the "**Purchase Option**") to purchase from the Participant, for a sum of $[ ] per share (the "**Option Price**"), some or all of the Shares as set forth herein.

(b) All of the Shares shall initially be subject to the Purchase Option. The Participant shall acquire a vested interest in, and the Company's Purchase Option shall accordingly lapse with respect to, (i) twenty-five percent (25%) of the Shares upon Participant's completion of one (1) year of Service measured from the Vesting Commencement Date and (ii) the balance of the Shares in a series of successive equal monthly installments of [1/48] of the Shares upon Participant's completion of each additional month of Service over the [thirty-six (36)-month] period measured from the first anniversary of the Vesting Commencement Date.

4. Exercise of Purchase Option and Closing.

(a) The Company may exercise the Purchase Option by delivering or mailing to the Participant (or the Participant's estate), within 180 days after the termination of the Service of the Participant, a written notice of exercise of the Purchase Option. Such notice shall specify the number of Shares to be purchased. If and to the extent the Purchase Option is not so exercised by the giving of such a notice within such 180-day period, the Purchase Option shall automatically expire and terminate effective upon the expiration of such 180-day period.

(b) Within ten (10) days after delivery to the Participant of the Company's notice of the exercise of the Purchase Option pursuant to subsection (a) above, the Participant (or the Participant's estate) shall, pursuant to the provisions of the Joint Escrow Instructions referred to in Section 8 below, tender to the Company at its principal offices the certificate or certificates representing the Shares that the Company has elected to purchase in accordance with the terms of this Agreement, duly endorsed in blank or with duly endorsed stock powers attached thereto, all in form suitable for the transfer of such Shares to the Company. Promptly following its receipt of such certificate or certificates, the Company shall pay to the Participant the aggregate Option Price for such Shares (provided that any delay in making such payment shall not invalidate the Company's exercise of the Purchase Option with respect to such Shares).

(c) After the time at which any Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Shares, but shall, in so far as permitted by law, treat the Company as the owner of such Shares.

(d) The Option Price may be payable, at the option of the Company, in cancellation of all or a portion of any outstanding indebtedness of the Participant to the Company or in cash (by check) or both.

(e) The Company shall not purchase any fraction of a Share upon exercise of the Purchase Option, and any fraction of a Share resulting from a computation made pursuant to Section 3 of this Agreement shall be rounded to the nearest whole Share (with any one-half Share being rounded upward).

(f) The Company may assign its Purchase Option to one or more persons or entities.

5. Restrictions on Transfer.

(a) The Participant shall not sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively "**transfer**") any Shares, or any interest therein, that are subject to the Purchase Option, except that the Participant may transfer such Shares (i) for bona fide estate planning purposes, either during the Participant's lifetime or on death by will or intestacy to his spouse, child (natural or adopted), or any other direct lineal descendant (or his or her spouse), or any other relative approved by a majority of the board of directors of the Company (each of the foregoing, "**Approved Relatives**"), or any custodian or trustee of any trust, partnership or limited liability company for the benefit of, or the ownership interest of which are owned wholly by the Participant or any such Approved Relatives; provided that such Shares shall remain subject to this Agreement (including without limitation the restrictions on transfer set forth in this Section 5, the Purchase Option and the right of first refusal set forth in Section 6) and such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement or (ii) as part of the sale of all or substantially all of the shares of capital stock of the Company (including pursuant to a merger or consolidation); provided that, in accordance with the Plan, the securities or other property received by the Participant in connection with such transaction shall remain subject to this Agreement.

(b) The Participant shall not transfer any Shares, or any interest therein, that are no longer subject to the Purchase Option, except in accordance with Section 6 below (or, if applicable, in accordance with a Superceding ROFR Provision (as defined below)). In connection with any such transfer, such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement.

6. Right of First Refusal.

(a) If the Participant proposes to transfer any Shares that are no longer subject to the Purchase Option (either because they are free from the Purchase Option pursuant to Section 3 or because the Purchase Option expired unexercised pursuant to Section 4), then the Participant shall first give written notice of the proposed transfer (the "**Transfer Notice**") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "**Offered Shares**"), the price per share and all other material terms and conditions of the transfer.

(b) For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after the Participant's receipt of such notice, the Participant shall tender to the Company

at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 6 shall remain subject to this Agreement (including without limitation the restrictions on transfer set forth in Section 5 and the right of first refusal set forth in this Section 6) and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement.

(d) After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) The following transactions shall be exempt from the provisions of this Section 6:

(1) a transfer of Shares to or for the benefit of any Approved Relatives, or to a trust established solely for the benefit of the Participant and/or Approved Relatives;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"); and

(3) the sale of all or substantially all of the outstanding shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to this Agreement (including without limitation the restrictions on transfer set forth in Section 5 and the right of first refusal set forth in this Section 6) and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement.

(f) The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 6 to one or more persons or entities.

(g) The provisions of this Section 6 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) a Change in Control.

(h) The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Agreement, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(i) Notwithstanding the provisions of subsections 6(a) through 6(h) above, if at any time the Participant and the Company are parties to a separate agreement containing a right of first refusal provision in favor of the Company that applies to transfers of the Shares (a "**Superseding ROFR Provision**"), the terms of such Superseding ROFR Provision will control in lieu of those of subsections 6(a) through 6(h) above and compliance with such Superseding ROFR Provision shall be deemed compliance with subsections 6(a) through 6(h) above.

7. Agreement in Connection with Initial Public Offering.

The Participant agrees not to, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Company's initial public offering (the "**IPO**") of Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1 or Form S-3, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (l80) days in the case of the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports; and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), or ninety (90) days in the case of any registration other than the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (a) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any Shares or other shares of the Company's capital stock (the "**Capital Stock**") (whether such shares or any such securities are then owned by the Participant or are thereafter acquired); or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Capital Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Capital Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 7 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Participant or the family members of the Participant, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein.

8. Escrow.

The Participant shall, upon the execution of this Agreement, execute Joint Escrow Instructions in the form attached to this Agreement as Exhibit A. The Joint Escrow Instructions shall be delivered to the Secretary of the Company, as escrow agent thereunder. The Participant shall deliver to such escrow agent a stock assignment duly endorsed in blank, in the form attached to this Agreement as Exhibit B, and hereby instructs the Company to deliver to such escrow agent, on behalf of the Participant, the certificate(s) evidencing the Shares issued hereunder. Such materials shall be held by such escrow agent pursuant to the terms of such Joint Escrow Instructions.

9. Restrictive Legends.

All certificates representing Shares shall have affixed thereto legends in substantially the following form, in addition to any other legends that may be required under federal or state securities laws:

> "The shares of stock represented by this certificate are subject to restrictions on transfer and an option to purchase set forth in a certain Restricted Stock Agreement between the corporation and the registered owner of these shares (or such owner's predecessor in interest), and such Agreement is available for inspection without charge at the office of the Secretary of the corporation."
>
> "The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, transferred or otherwise disposed of in the absence of an effective registration statement under such Act or an opinion of counsel satisfactory to the corporation to the effect that such registration is not required."

10. Provisions of the Plan.

This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement.

11. Investment Representations.

The Participant represents, warrants and covenants as follows:

(a) The Participant is purchasing the Shares for Participant's own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act, or any rule or regulation under the Securities Act.

(b) The Participant has had such opportunity as Participant has deemed adequate to obtain from representatives of the Company such information as is necessary to permit him to evaluate the merits and risks of Participant's investment in the Company.

(c) The Participant has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(d) The Participant can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(e) The Participant understands that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act; (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

12. Withholding Taxes; Section 83(b) Election.

(a) The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state or local taxes of any kind required by law to be withheld with respect to the purchase of the Shares by the Participant or the lapse of the Purchase Option.

(b) The Participant has reviewed with the Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. The Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement. The Participant understands that it may be beneficial in many circumstances to elect to be taxed at the time the Shares are granted by the Company rather than when and as the Company's Purchase Option expires by filing an election under Section 83(b) of the Internal Revenue Code of 1986 with the I.R.S. within 30 days from the date of grant by the Company.

THE PARTICIPANT ACKNOWLEDGES THAT IT IS SOLELY THE PARTICIPANT'S RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b), EVEN IF THE PARTICIPANT REQUESTS THE COMPANY OR ITS REPRESENTATIVES TO MAKE THIS FILING ON THE PARTICIPANT'S BEHALF.

13. Miscellaneous.

(a) No Rights to Employment. The Participant acknowledges and agrees that the vesting of the Shares pursuant to Section 3 hereof is earned only by the Participant's continuous Service (not through the act of being hired or purchasing the Shares hereunder). The Participant further acknowledges and agrees that the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of continued engagement as an employee or consultant for the vesting period, for any period, or at all.

(b) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

(c) Waiver. Any provision for the benefit of the Company contained in this Agreement may be waived, either generally or in any particular instance, by the Board of Directors of the Company.

(d) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Participant and their respective heirs, executors, administrators, legal representatives, successors and assigns, subject to the restrictions on transfer set forth in Sections 5 and 6 of this Agreement.

(e) Notice. All notices required or permitted hereunder shall be in writing and deemed effectively given upon personal delivery or five days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party hereto at the address shown beneath his or her or its respective signature to this Agreement, or at such other address or addresses as either party shall designate to the other in accordance with this Section 13(e).

(f) Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns and pronouns shall include the plural, and vice versa.

(g) Entire Agreement. This Agreement and the Plan constitute the entire agreement between the parties, and supersedes all prior agreements and understandings, relating to the subject matter of this Agreement.

(h) Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Participant.

(i) Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the internal laws of the State of Delaware without regard to any applicable conflict of law principles.

(j) Participant's Acknowledgments. The Participant acknowledges that he or she: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement; (iv) is fully

aware of the legal and binding effect of this Agreement; and (v) understands that the law firm of WilmerHale is acting as counsel to the Company in connection with the transactions contemplated by the Agreement, and is not acting as counsel for the Participant.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed the Restricted Stock Agreement as of the date and year first above written. The Participant hereby agrees to the terms and conditions thereof. The Participant hereby acknowledges receipt of a copy of the Company's 2016 Stock Incentive Plan.

COMPANY:

Kyn Therapeutics Inc.

By: _____
Name: _____
Title: _____

Address: 6405 Williams Ridge Way Austin, TX 78731

PARTICIPANT:

By: _____
[Name]

Address: [ ]
[ ]

SPOUSAL CONSENT:

By: _____
Name:

Address: [ ]
[ ]

SIGNATURE PAGE TO RESTRICTED STOCK AGREEMENT
GRANTED UNDER STOCK INCENTIVE PLAN

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

LICENSE AGREEMENT

BY AND BETWEEN

ARRYS THERAPEUTICS, INC.

AND

ASKAT, INC.

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LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "**Agreement**") is entered into as of December 14, 2017 (the "**Effective Date**") by and among Arrys Therapeutics, Inc., a corporation organized and existing under the laws of Delaware and having a principal place of business at c/o OrbiMed Advisors, LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022 ("**Arrys**") and AskAt Inc., a company organized under the laws of Japan and having its principal place of business at [***], Nagoya, Japan, 466-0841 ("**AskAt**"). Arrys and AskAt are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

BACKGROUND

AskAt owns or otherwise controls certain materials, patents, patent applications, technology, know-how, scientific and technical information and other proprietary rights and information relating to EP4 Antagonists.

AskAt owns certain patents and patent applications relating to methods of the treatment of cancer.

Arrys is a newly formed company that was formed for the purpose of entering into this Agreement.

AskAt has agreed to grant to Arrys an exclusive license under the Licensed Technology to Exploit the Licensed Compounds and Licensed Products (all as defined below), and Arrys desires to receive such license, in accordance with the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the foregoing premises and the mutual promises, covenants and conditions contained in this Agreement, the Parties agree as follows:

ARTICLE 1

DEFINITIONS

As used in this Agreement, the following initially capitalized terms, whether used in the singular or plural form, shall have the meanings set forth in this Article 1.

1.1 "**007 Composition Product**" means any Composition Product containing [***]. 007 Composition Products are "Composition Products", as defined below.

1.2 "**007 Composition Royalty-Bearing Products**" has the meaning set forth in Section 5.3(a).

1.3 "**007 Development Milestone**" means the sooner of (a) Initiation of the first Phase II or Phase III Clinical Trial of an 007 Composition Product, whichever occurs first, provided however, that in no event shall Initiation of any Phase I Clinical Trial (including any phase 1b clinical trial) described in the Development Plan as of the Effective Date be grounds for achievement of the 007 Development Milestone or (b) the [***] following the formal adoption of a binding resolution by the Board of Directors of Arrys authorizing the Initiation of a Phase II or Phase III Clinical Trial that if Initiated would satisfy clause (a) of this definition.

1.4 "**007 Development Milestone Fee**" has the meaning set forth in Section 5.2(a).

1.5 "**007 Patents**" means any and all Composition Patents other than the 008 Patents.

1.6 "**007 Technology**" means all Composition Technology other than the 008 Technology.

1.7 "**008 Composition Product**" means any product containing [***]. 008 Composition Products are "Composition Products".

1.8 "**008 Composition Royalty-Bearing Products**" has the meaning set forth in Section 5.3(a).

1.9 "**008 Development Milestone**" means the sooner of (a) Initiation of the first Phase II or Phase III Clinical Trial of an 008 Composition Product, whichever occurs first, provided however, that in no event shall Initiation of any Phase I Clinical Trial (including any phase 1b clinical trial) described in the Development Plan as of the Effective Date be grounds for achievement of the 008 Development Milestone or (b) the [***] following the formal adoption of a binding resolution by the Board of Directors of Arrys authorizing the Initiation of a Phase II or Phase III Clinical Trial that if Initiated would satisfy clause (a) of this definition.

1.10 "**008 Development Milestone Fee**" has the meaning set forth in Section 5.2(b).

1.11 "**008 Patents**" means any and all Composition Patents that are solely related to, claim or cover [***].

1.12 "**008 Technology**" means the (a) Composition Know-How that solely describes or contains Know-How related to [***].

1.13 "**505(b)(2) NDA**" means a new drug application submitted to the FDA under 21 U.S.C. § 355(b)(2) (or any replacement thereof).

1.14 "**AAA**" has the meaning set forth in Section 11.3.

1.15 "**AAT-007**" means [***].

1.16 "**AAT-008**" means [***].

1.17 "**Affiliate**" means, with respect to a particular Person, a person, corporation, partnership, or other entity that controls, is controlled by or is under common control with such Person. For the purposes of this definition, the word "control" (including, with correlative meaning, the terms "controlled by" or "under the common control with") means the actual power, either directly or indirectly through one or more intermediaries, to direct or cause the direction of the management and policies of such entity, whether by the ownership of more than [***] of the voting stock of such entity, or by contract or otherwise. For the avoidance of doubt, Kyn Therapeutics and Arrys are not Affiliates of each other for purposes of this Agreement.

1.18 "**Agreement**" has the meaning set forth in the preamble hereto.

1.19 "**ANDA**" means an Abbreviated New Drug Application pursuant to 21 U.S.C. § 355(j) and 21 C.F.R. § 314.3.

1.20 "**Applicable Law**" means the applicable laws, rules, regulations, guidelines and other requirements of Governmental Authorities, including Regulatory Authorities, that may be in effect from time to time, including GLP, GMP, the UK Bribery Act of 2010 and the Foreign Corrupt Practices Act of 1977, as amended.

1.21 "**Arrys Indemnitees**" has the meaning set forth in Section 8.1.

1.22 "**Arrys Sublicensee**" means any Third Party granted a sublicense by Arrys, any of its Affiliates or any other Arrys Sublicensee under the rights granted to Arrys hereunder (such sublicense, a "Arrys Sublicense").

1.23 "**AskAt Indemnitees**" has the meaning set forth in Section 8.2.

1.24 "**AskAt Outbound Agreements**" means, collectively, the following: [***].

1.25 "[***] **Agreements**" means, collectively, the following: [***].

1.26 "**Bankruptcy Code**" has the meaning set forth in Section 10.3(b).

1.27 "**Business Day**" means a day other than a Saturday or a Sunday or a bank or other public holiday in Tokyo, Japan or New York, New York, for AskAt or Arrys, respectively.

1.28 "**Calendar Quarter**" means the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30 and December 31.

1.29 "**Calendar Year**" means each successive period of twelve (12) months commencing on January 1 and ending on December 31.

1.30 "**Change of Control**" means, with respect to a Person, (a) completion of a merger, reorganization, amalgamation, arrangement, share exchange, consolidation, tender or exchange offer, private purchase, business combination, recapitalization or other transaction as a result of which the stockholders of the Person immediately preceding such transaction hold less than [***] of the outstanding shares, or less than [***] of the outstanding voting power, respectively, of the ultimate company or entity resulting from such transaction immediately after consummation thereof (including a company or entity which as a result of such transaction owns the then-outstanding securities of the Person or all or substantially all of such Person's assets, either directly or through one or more subsidiaries), (b) the adoption of a plan relating to the liquidation or dissolution of the Person, other than in connection with a corporate reorganization (without limitation of clause (a), above), (c) any sale, lease, exchange, exclusive license, contribution or other transfer (in one transaction or a series of related transactions) to a Third Party of all or substantially all the assets of the Person (determined on a consolidated basis), or (d) the sale or disposition to a Third Party of assets or businesses that constitute [***] or more of the total revenue or assets of the Person (determined on a consolidated basis).

1.31 "**Claim**" has the meaning set forth in Section 8.3.

1.32 "**Clinical Trials**" means Phase I Clinical Trials, Phase II Clinical Trials, Phase III Clinical Trials, Phase IV Clinical Trials or Pivotal Trials.

1.33 "**Combination Product**" means a Licensed Product that, in addition to containing a Licensed Compound as an active ingredient, also contains at least one other active pharmaceutical ingredient that is not a Licensed Compound.

1.34 "**Commercialize**" or "**Commercialization**" means, together with all correlative meanings, the import, export, marketing, promotion, sale or distribution of a product, including commercial activities conducted in preparation for a product launch. Commercialization shall expressly exclude (a) Research, (b) Development and (c) Manufacture.

1.35 "**Commercially Reasonable Efforts**" means, with respect to a Party's obligations that relate to the achievement of an objective, the use of reasonable, diligent efforts and resources (including use and expenditure of resources) as normally used by similarly situated companies in the relevant field for the achievement of the same or a similar objective on a timely basis for such company's similarly situated therapeutic products at a similar stage of development and with similar commercial potential, taking into account all relevant factors, including safety and efficacy, product profile, the proprietary position, the then-current competitive environment and the likely timing of market entry, the regulatory environment and status, and other relevant scientific, technical and commercial factors, all as determined at the time such obligations are due.

1.36 "**Compartment Specific Product**" means any product containing a Licensed Compound that is administered to a restricted tissue or compartment of the human body for the purpose of local administration. For the avoidance of doubt the following are not Compartment Specific Products: (a) a product that is administered for the purpose of systemic exposure by any means or (b) any product that is administered intravenously, by intra-muscular injection or by subcutaneous injection.

1.37 "**Composition Know-How**" means any Know-How Controlled by AskAt or any of its Affiliates on the Effective Date or during the Term that is necessary or useful to Exploit, or otherwise relates to, any Licensed Compound, 007 Composition Product or 008 Composition Product.

1.38 "**Composition Know-How Materials**" means materials and information in any form that describe or contain the Composition Know-How, including without limitation the Regulatory Materials that were available to Arrys pursuant to the Data Room immediately prior to the Effective Date.

1.39 "**Composition Patents**" means any and all Patents Controlled by AskAt or any of its Affiliates on the Effective Date or during the Term that are related to, claim or cover any Licensed Compound or Composition Product.

1.40 "**Composition Products**" means any product containing a Licensed Compound.

1.41 "**Composition Technology**" means the Composition Know-How and Composition Patents.

1.42 "**Confidential Information**" has the meaning set forth in Section 9.1.

1.43 "**Control**" or "**Controlled**" means, with respect to any data, information, materials, compounds, Know-How, Patents, Regulatory Materials or Regulatory Approvals, the possession (whether by ownership or license or other legal authority, but other than pursuant to

this Agreement) by a Party or its Affiliates of the ability to grant to the other Party a license or access as provided herein to such item, or to otherwise disclose proprietary or trade secret information to such other Party without violating the terms of any agreement or other arrangement with any Third Party, in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license or access.

1.44 "**CPA Firm**" has the meaning set forth in Section 5.4(d)(ii).

1.45 "**Data Room**" means that certain information sharing electronic storage that contained AskAt's Confidential Information regarding AAT-007 and AAT-008 which Arrys evaluated and/or used to make the decision to enter into this License Agreement.

1.46 "**Develop**" or "**Development**" means, together with all correlative meanings, pre-clinical and clinical drug development activities, conducted before or after obtaining Regulatory Approval that are reasonably related to or leading to the development, preparation, and submission of data and information to a Regulatory Authority for the purpose of obtaining, supporting or expanding Regulatory Approval or to the appropriate body for obtaining, supporting or expanding pricing and reimbursement approval, including without limitation, all activities related to preclinical testing, assay development and validation, in vivo testing, biomarker development and validation, toxicology, pharmacokinetic profiling, design and conduct of Clinical Trials and any other clinical trials or studies, regulatory affairs, statistical analysis, report writing, and Regulatory Material creation and submission (including the services of outside advisors and consultants in connection therewith). Development expressly excludes (a) Research, (b) Commercialization and (c) the Manufacture and accumulation of commercial inventory of a product.

1.47 "**Development Plan**" means the development plan with respect to AAT-007 and AAT-008 set forth on Exhibit B, as it may be reasonably amended or modified by Arrys from time to time. For the avoidance of doubt, any terms of this Agreement, including but not limited to the definition of "007 Development Milestone" and "008 Development Milestone", may not be amended or modified by the Development Plan.

1.48 "**Disputes**" shall have the meaning set forth in Section 11.1.

1.49 "**Drug Substance**" means the bulk drug substance manufactured by or on behalf of AskAt that contains a Licensed Compound.

1.50 "**Effective Date**" has the meaning set forth in the preamble to this Agreement.

1.51 "**EP4 Antagonist**" means any small molecule that blocks the EP4 receptor.

1.52 "**EMA**" means the European Medicines Agency or its successor.

1.53 "**EU**" means all of the European Union member states as of the applicable time during the Term.

1.54 "**Exploit**" or "**Exploitation**" means, collectively, to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported, export, have exported and otherwise exploit and have exploited, including Research, Develop, Manufacture and Commercialize.

1.55 "**FDA**" means the United States Food and Drug Administration or its successor.

1.56 "**FD&C Act**" means the United States Federal Food, Drug and Cosmetic Act, as amended.

1.57 "**Field**" means the treatment, prevention, diagnosis or prognosis of diseases or disorders in humans, other than by means of administration of a Compartment Specific Product; provided that AAT-007 human injectable use is included in the Field only with respect to the treatment, prevention, diagnosis or prognosis of cancer using an injectable formulation thereof, and further provided that if AskAt obtains any additional rights to an injectable formulation of AAT-007 other than a Compartment Specific Product with respect to the treatment, prevention, diagnosis or prognosis of diseases or disorders in humans, the "Field" shall automatically be expanded, without further action of either Party, to include all such rights.

1.58 "**First Commercial Sale**" means, with respect to a Licensed Product and a country, the first sale to a Third Party of such Licensed Product in such country after all Regulatory Approvals, including any pricing or reimbursement approvals, as applicable, have been obtained in such country.

1.59 "**Generic Product**" means, with respect to a Licensed Product in a country, a pharmaceutical product that: (a) (i) contains the same active moiety as the Licensed Product; and (ii) is approved for use or marketing in such country by a Regulatory Authority through an ANDA or 505(b)(2) NDA, or any enabling legislation thereof, or pursuant to any similar abbreviated route of approval in any countries in the Territory; or (b) (i) contains the same active moiety as the Licensed Product; and (ii) is approved for use in such country by a Regulatory Authority through a regulatory pathway referencing or relying on clinical data, or any findings of safety or efficacy therein, first submitted by Arrys or its Affiliates or Arrys Sublicensees for obtaining Regulatory Approval for such Licensed Product, in each case other than any Licensed Product that has been Developed under this Agreement by or on behalf of Arrys or any of its Affiliates or Arrys Sublicensees or Commercialized by or on behalf of Arrys or any of its Affiliates or Arrys Sublicensees in such country. As used herein, the term "active moiety" has the meaning set forth in Title 21, United States Code of Federal Regulations, § 314.108(a).

1.60 "**Good Laboratory Practices**" or "**GLP**" means the then-current practices and procedures set forth in Title 21, United States Code of Federal Regulations, Part 58 (as amended), and any other regulations, guidelines or guidance documents relating to good laboratory practices, or any foreign equivalents thereof in the country in which such studies or clinical trials are conducted.

1.61 "**Good Manufacturing Practices**" or "**GMP**" means the then-current practices and procedures set forth in Title 21, United States Code of Federal Regulations, Parts 210 – 211, ICH Guideline Q7A, and any other regulations, guidelines or guidance documents relating to good manufacturing practices, or any foreign equivalents thereof in the country in which such manufacturing activities are conducted.

1.62 "**Governmental Authority**" means any multi-national, federal, state, local, municipal or other government authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, court or other tribunal).

1.63 "**IND**" means (a) an Investigational New Drug Application as defined in the FD&C Act and applicable regulations promulgated thereunder by the FDA, or (b) a clinical trial application or similar equivalent application or submission to the equivalent Regulatory Authority in any other regulatory jurisdiction, the filing of which is necessary to initiate or conduct clinical testing of a pharmaceutical product in humans in such jurisdiction.

1.64 "**Indemnified Party**" has the meaning set forth in Section 8.3.

1.65 "**Indemnifying Party**" has the meaning set forth in Section 8.3.

1.66 "**Infringement Notice**" has the meaning set forth in Section 6.4(a).

1.67 "**Initiation**" or "**Initiate**" means, together with all correlative meanings, the first dosing of the first subject or patient in a Clinical Trial of a Licensed Product to be conducted by or on behalf of Arrys or any of its Affiliates.

1.68 "**Initiation Fee**" has the meaning set forth in Section 5.1.

1.69 "**Inventions**" mean all inventions, discoveries, improvements, modifications, enhancements or creations, in each case whether or not patentable and whether or not reduced to practice, and any intellectual property rights (including Know-How and Patents) arising from any of the foregoing.

1.70 "**Joint Invention**" means any Invention developed, created, conceived or reduced to practice jointly by or on behalf of the Parties in connection with and during the Term of this Agreement. For the purposes of clarity, Joint Inventions includes Inventions developed by Arrys that incorporate Licensed Know-How.

1.71 "**Joint Patent**" means any Patent that is related to, claims or covers any Joint Invention.

1.72 "**Know-How**" means any data, results, and information of any type whatsoever, in any tangible or intangible form, including know-how, inventions, discoveries, developments, trade secrets, practices, techniques, methods, processes, specifications, formulations, formulae, materials or compositions of matter of any type or kind (patentable or otherwise), software, algorithms, marketing reports, clinical and non-clinical study reports, regulatory submission documents and summaries, technology, test data including pharmacological, biological, chemical, biochemical, toxicological, and clinical test data, analytical and quality control data, stability data, studies and procedures.

1.73 "**Know-How Materials**" means the Composition Know-How Materials and Treatment Know-How Materials.

1.74 "**Licensed Compound**" means each of [***].

1.75 "**Licensed Know-How**" means the Composition Know-How and the Treatment Know-How.

1.76 "**Licensed Patents**" means the Composition Patents and the Treatment Patents. The Licensed Patents Controlled by AskAt or any of its Affiliates on the Effective Date are set forth on Exhibit A. For the avoidance of doubt, Licensed Patents includes AskAt's interest in any Joint Patents.

1.77 "**Licensed Products**" with respect to the Composition Technology, means the Composition Products, and with respect to the Treatment Technology, means the Treatment Products, in each case, other than Compartment Specific Products.

1.78 "**Licensed Technology**" means the Composition Technology and the Treatment Technology.

1.79 "**Manufacture**" means, with respect to a product, those manufacturing activities involved in or relating to (a) manufacturing process development, (b) CMC activities including analytical development and qualification, formulation development, solubility testing, bulk drug substance manufacturing, stability testing and scale-up activities, bulk drug product manufacturing and stability testing, (c) quality assurance and quality control activities including validation testing, qualification and audit of clinical and commercial manufacturing facilities, and (d) in the case of either a clinical or commercial supply of such product or supply of such product for any non-clinical study, the manufacturing, processing, formulating, packaging, labeling, holding, quality control testing and release of such product.

1.80 "**Marketing Authorization Application**" or "**MAA**" means an application for Regulatory Approval in a country, territory or possession.

1.81 "**NDA**" means a New Drug Application, as defined in the FD&C Act and applicable regulations promulgated thereunder by the FDA, or any analogous application or submission with any Regulatory Authority outside of the United States.

1.82 "**Net Sales**" means the gross amount invoiced by Arrys and its Affiliates and Arrys Sublicensees for sales or other transfers of each Royalty-Bearing Product to a Third Party less the following:

(i) customary trade, quantity, or cash discounts, credits or allowances to the extent actually allowed and taken;

(ii) rebates and allowances, including chargebacks and retroactive price reductions, hospital buying group/group purchasing organization administration fees or managed care organization rebates actually given;

(iii) rebates and similar payments made with respect to sales paid for by any governmental or regulatory authority such as Federal or state Medicaid, Medicare or similar state program;

(iv) amounts repaid or credited by reason of defects, recalls, rejections or returns;

(v) to the extent separately stated on purchase orders, invoices, or other documents of sale, any taxes or other governmental charges levied on the production, sale, transportation, delivery or use of a Royalty-Bearing Product which is paid by or on behalf of Arrys; and

(vi) to the extent separately stated on purchase orders, invoices, or other documents of sale, outbound transportation costs prepaid or allowed and costs of insurance in transit.

For the avoidance of doubt, the following shall not be considered Net Sales hereunder: (A) transfers of a Royalty-Bearing Product between any of Arrys, its Affiliates or Arrys Sublicensees for sale by the transferee, (B) transfers of samples of a Royalty-Bearing Product used to promote additional Net Sales, and (C) disposal or use of Royalty-Bearing Product in Clinical Studies or under compassionate use, patient assistance, named patient use, or test marketing programs or non-registrational studies or other similar programs or studies.

In the event that a Royalty-Bearing Product is sold as a Combination Product, Net Sales, for the purposes of determining royalty payments on the Combination Product, shall mean the gross amount collected for the Combination Product less the deductions set forth in clauses above, multiplied by a proration factor that is determined as follows on a country-by-country basis:

(1) If all components of the Combination Product were sold separately during the same or immediately preceding Reporting Period in a single country, the proration factor shall be determined by the formula [a /(a+b)], where a is the average gross sales price of all Royalty-Bearing Product components (as applicable) during such period when sold separately from the other component(s) in such country, and b is the average gross sales price of the other component(s) during such period when sold separately from the Royalty-Bearing Product components (as applicable) in such country; or

(2) If all components of the Combination Product were not sold or provided separately during the same or immediately preceding Reporting Period in a single country, the proration factor shall be determined by the Parties in good faith negotiations based on the relative value contributed by each component.

1.83 "**Net Sales Royalty**" has the meaning set forth in Section 5.4(a).

1.84 "**Net Sales Statement**" has the meaning set forth in Section 5.4(a).

1.85 "**Party" or "Parties**" has the meaning set forth in the preamble to this Agreement.

1.86 "**Patent**" means (a) any national or regional patent or national, regional or international patent application, anywhere in the world, including any provisional patent application, (b) any patent application filed either claiming priority to such a patent, patent application or provisional application or from an application claiming priority to any of these, including any divisional, continuation, continuation-in-part, (c) any patent that has issued or in the future issues from any of the foregoing patent applications (in each case (a) and (b)), including any utility model, petty patent, design patent and certificate of invention, (d) any extension or restoration by existing or future extension or restoration mechanisms, including any revalidation, reissue, re-examination and extension (including any supplementary protection certificate and the like in any jurisdiction) of any of the foregoing patents or patent applications (in each case (a), (b) and (c)), and (e) any similar rights, including so-called pipeline protection, or any importation, revalidation, confirmation or introduction patent or registration patent or patent of additions to any such foregoing patent application or patent.

1.87 "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government.

1.88 "**Phase I Clinical Trial(s)**" means a human clinical trial(s) of a product, the principal purpose of which is a determination of initial tolerance or safety of such product in healthy volunteers and/or the target patient population, as described in 21 CFR 312.21(a) (as amended or any replacement thereof), or a similar clinical trial prescribed by the Regulatory Authority in a country other than the United States.

1.89 "**Phase II Clinical Trial**" means a human clinical trial of a product, the principal purpose of which is a determination of safety and efficacy in the target patient population, as described in 21 C.F.R. 312.21(b) (as amended or any replacement thereof), or a similar clinical trial prescribed by the Regulatory Authority in a country other than the United States.

1.90 "**Phase III Clinical Trial**" means a human clinical trial of a product, the design of which is acknowledged by the FDA to be sufficient for such clinical trial to satisfy the requirements of 21 C.F.R. 312.21(c) (as amended or any replacement thereof), or a similar human clinical trial prescribed by the Regulatory Authority in a country other than the United States, the design of which is acknowledged by such Regulatory Authority to be sufficient for such clinical trial to satisfy the requirements of a pivotal efficacy and safety clinical trial.

1.91 "**Phase IV Clinical Trial**" means any study of a product following the first Regulatory Approval for the sale of such product whether or not required by a Governmental Authority. Phase IV Clinical Trials may include epidemiological studies, modeling and pharmacoeconomic studies, post-marketing surveillance studies and clinical or other research studies.

1.92 "**Pivotal Trial**" means, with respect to any Licensed Product, a Clinical Trial that at the time of commencement (or any later expansion of patient enrollment, if applicable), is expected by Arrys to be the basis for Regulatory Approval with respect to Clinical Trials for such Licensed Product.

1.93 "[***]" means [***].

1.94 "[***] **License Agreements**" means, collectively, the following: [***].

1.95 "**Regulatory Approval**" means all approvals necessary for the Manufacture, marketing, importation and sale of a product for one or more indications in a country or regulatory jurisdiction, which may include satisfaction of all applicable regulatory and notification requirements, including any pricing and reimbursement approvals. Regulatory Approvals include approvals by Regulatory Authorities of INDs, MAAs, or NDAs.

1.96 "**Regulatory Authority**" means, in a particular country or regulatory jurisdiction, any applicable Governmental Authority involved in granting Regulatory Approval or, to the extent required in such country or regulatory jurisdiction, pricing or reimbursement approval of a product in such country or regulatory jurisdiction, including (a) the FDA, (b) the EMA, and (c) the European Commission, or its successor.

1.97 "**Regulatory Materials**" means regulatory applications, submissions, notifications, registrations, or other filings made to or with a Regulatory Authority that are necessary or reasonably desirable in order to Develop, Manufacture, market, sell or otherwise Commercialize a Licensed Compound or a Composition Product in any country or regulatory jurisdiction within the Territory. Regulatory Materials include INDs, MAAs and NDAs (as applications, but not the approvals with respect thereto). Regulatory Materials shall include, without limitation, those materials and information described on **Schedule 1.97**.

1.98 "**Related Know-How and Inventions**" shall have the meaning set forth in **Section 10.5(a)(iv)**.

1.99 "**Research**" means, together with all correlative meanings, activities related to the discovery, identification, profiling, characterization, advancement or progression of compounds. Research shall expressly exclude (a) Development, (b) Commercialization and (c) Manufacture.

1.100 "**Retention Field**" means all fields except for the Field.

1.101 "**Royalty-Bearing Products**" means any Licensed Product, the manufacture, use, sale or administration of which is claimed or covered by any of the Licensed Patents or that utilizes or incorporates any of the Licensed Know-How.

1.102 "**Royalty Rate**" has the meaning set forth in Section 5.4(a).

1.103 "**Royalty Term**" means, on a country-by-country and Royalty-Bearing Product-by-Royalty-Bearing Product basis, the period beginning with the First Commercial Sale of such product in such country and ending (a) [***] from the date of the First Commercial Sale of such Royalty-Bearing Product in such country, or (b) the expiration date in such country of the last to expire Valid Claim within the (i) Composition Patents claiming or covering the composition of matter of such Royalty-Bearing Product in such country or (ii) Treatment Patents that claim or cover the manufacture, use or sale of such Royalty-Bearing Product, whichever of (a) or (b) is longer.

1.104 "**SEC**" means the U.S. Securities and Exchange Commission.

1.105 "**Term**" has the meaning set forth in Section 10.1.

1.106 "**Territory**" means worldwide other than China and Taiwan.

1.107 "**Third Party**" means any Person other than Arrys or AskAt or their respective Affiliates.

1.108 "**Treatment Know-How**" means any Know-How Controlled by AskAt or any of its Affiliates on the Effective Date or during the Term that is reasonably necessary or useful to Exploit, or otherwise relates to, the method of treatment claimed in the Treatment Patents.

1.109 "**Treatment Know-How Materials**" means materials and information in any form that describe or contain the Treatment Know-How, including without limitation the materials that were available to Arrys pursuant to the Data Room immediately prior to the Effective Date.

1.110 "**Treatment Patents**" means any and all Patents Controlled by AskAt or any of its Affiliates on the Effective Date or during the Term that are related to, claim or cover any method of treating cancer.

1.111 "**Treatment Product**" means any product containing a Licensed Compound, Composition Product or any other compound, product, composition of matter or material, or any service, in each case, the manufacture, use, sale or administration of which is claimed or covered by any of the Treatment Patents or that utilizes or incorporates any of the Treatment Know-How.

1.112 "**Treatment Technology**" means the Treatment Know-How and Treatment Patents.

1.113 "**U.S.**" means the United States of America and its possessions and territories.

1.114 "**Valid Claim**" means a claim of any issued, unexpired United States or granted foreign Patent that has not been dedicated to the public, disclaimed, irrevocably abandoned or held permanently invalid or unenforceable by a court or other body of competent jurisdiction from which no further appeal can be taken, and that has not been explicitly disclaimed, or of a scope not covering a particular product or service through reissue, disclaimer or otherwise.

ARTICLE 2

TECHNOLOGY TRANSFER

During the [***] period immediately after the Effective Date, and periodically thereafter at Arrys's reasonable request, AskAt shall, and shall cause its Affiliates and contractors to, reasonably cooperate with Arrys to facilitate the technology transfer of Licensed Technology, Licensed Compounds and Licensed Products to enable the Research, Development, Manufacture and Commercialization of Licensed Compounds and Licensed Products, in each case, by providing the relevant information and materials then in the possession of AskAt or any of its Affiliates or contractors. Furthermore, such technology transfer may include providing Arrys, and any designated contract manufacturer of Arrys, with such assistance as may be necessary or useful to transfer and implement the processes, methods and techniques used by or on behalf of AskAt in the Manufacture of Licensed Compounds or Licensed Products as of the Effective Date. In addition to the foregoing, such cooperation shall include providing Arrys with reasonable access by teleconference or in-person at AskAt's and AskAt's Affiliates', and its and their contractors', facilities to appropriate personnel from AskAt and its Affiliates, and its and their contractors, to provide Arrys with a reasonable level of technical assistance and consultation in connection with the transfer of Licensed Technology, Licensed Compounds and Licensed Products. Arrys shall reimburse AskAt for its reasonable and reasonably documented out-of-pocket costs incurred in connection with providing such assistance under this Article 2, but in no event shall Arrys pay for any such expenses hereunder if Arrys is obligated to pay any of the same expenses pursuant to that certain Consulting and Supply Agreement, by and between the Parties, dated on or about the date hereof.

ARTICLE 3

RESEARCH, DEVELOPMENT AND COMMERCIALIZATION

3.1 Research and Development. As of the Effective Date, Arrys shall have sole responsibility for and sole decision-making (subject to the limitations on amendments and modifications set forth in the Development Plan) over the Research and Development of all Licensed Compounds and Licensed Products in the Field and Territory, and associated costs and expenses.

3.2 Regulatory Responsibilities. As of the Effective Date, Arrys shall have sole responsibility for and sole decision-making over all regulatory activities and associated costs and expenses for the Licensed Compounds and Licensed Products in the Territory, both before and after obtaining Regulatory Approval. Without limiting the foregoing, (a) Arrys shall have sole control over preparing and submitting all Regulatory Materials related to the Licensed Compounds and Licensed Products, including all INDs and all applications for Regulatory Approval; (b) Arrys shall own any and all applications for Regulatory Approvals, the Regulatory Approvals, and other Regulatory Materials related to the Licensed Compounds and Licensed Products, which shall be held in the name of Arrys or its designees; (c) the decision whether to file an IND for any particular Licensed Compound or Licensed Product and the contents of such IND shall be at Arrys's sole discretion; (d) Arrys shall have the sole right to conduct all communications with Regulatory Authorities, including all meetings, conferences and discussions (including advisory committee meetings), with regard to Licensed Compounds and Licensed Products in the Territory; *provided that*, if Arrys requests that AskAt or its Affiliates interact with a Regulatory Authority, the Parties shall discuss such request in good faith, and if the Parties agree, AskAt shall, at Arrys's cost, engage, or shall cause its Affiliates to engage, as applicable, in such interaction with such Regulatory Authority. Arrys shall reimburse AskAt for its reasonable and reasonably documented out-of-pocket costs incurred in connection with providing such assistance within [***] of receipt of an invoice from AskAt.

3.3 Manufacturing. Promptly following the Effective Date, upon request from Arrys, AskAt shall, and shall cause its Affiliates to, use Commercially Reasonable Efforts to assign to Arrys or its designee all then-existing Manufacturing contracts with Third Party contract manufacturers, if any, that are related to the Manufacture of any of the Licensed Compounds or Composition Products. As of the Effective Date, Arrys shall have sole responsibility for and sole decision-making authority over all Manufacturing activities and associated costs and expenses for the Manufacturing of the Licensed Compounds and Composition Products in the Field. Without limiting the foregoing, at Arrys's request, the Parties shall negotiate in good faith the terms of a manufacturing and supply agreement to be entered into by them for purposes of AskAt's supplying Drug Substance to Arrys or any of its Affiliates or Arrys Sublicensees.

3.4 Commercialization. As of the Effective Date, Arrys shall have sole responsibility for and sole decision-making over all Commercialization activities of the Licensed Products in the Field, including choosing the brand(s) under which the Licensed Products shall be Commercialized. After the Effective Date, Arrys shall be solely responsible for the associated costs and expenses of such Commercialization activities.

3.5 Diligence. Arrys shall use Commercially Reasonable Efforts to Develop and Commercialize at least one Licensed Product, including but not limited to, (a) completing a Phase I Clinical Trial of an 008 Composition Product and (b) Exploiting at least [***] Licensed Product in the Field in the Territory, in each case, in accordance with the Development Plan. For the avoidance of doubt, the following shall be a breach of Arrys's obligation under this Section 3.5: Arrys and all of its Affiliates and each Arrys Sublicensee ceases all Development of all Licensed Products and Licensed Compounds for [***].

3.6 Reports. Regarding the Arrys's report to AskAt, Arrys agrees as follows:

(a) Within [***] following the end of each June and December, Arrys shall provide to AskAt a report summarizing in general terms the Development, Commercialization, and Manufacture of Licensed Products hereunder until (i) the First Commercial Sale of the first Licensed Product or (ii) Arrys, its Affiliates and Arrys's Sublicensees cease all Development of Licensed Products, whichever comes later. Each such report shall include a list of all Arrys's Affiliates who are exercising rights under this Agreement and Arrys Sublicensees, and Government Approvals of Licensed Product received.

(b) Within [***] following the First Commercial Sale of any Licensed Product, provide AskAt with written notice thereof, including the name of the country in which such First Commercial Sale occurred.

(c) If this Agreement is terminated for any reason during the Royalty Term, Arrys shall deliver a final report and associated royalty payment to AskAt in accordance with the terms hereof.

(d) (i) Arrys shall promptly provide AskAt with copies of all safety data Controlled by Arrys or any of its Affiliates or any Arrys Sublicensee that satisfies each of the following requirements: (A) relates to any Licensed Compound or Licensed Product and (B) could reasonably be expected to affect development of Compartment Specific Products. AskAt may use such data solely for developing, and having Third Parties develop for AskAt's benefit, Compartment Specific Products. Without limiting the foregoing, in no event may AskAt allow such data to be Exploited in the Field regardless of whether inside or outside the Territory. (ii) Notwithstanding anything herein to the contrary, following a written request from AskAt, Arrys shall promptly provide AskAt with a copy of all such safety data that relates to any Licensed Compound or Licensed Product and that is required by a Governmental Authority, and AskAt may disclose such safety data to such Governmental Authority if AskAt is required to do so by any Applicable Law or Governmental Authority; provided that AskAt shall request confidential treatment of such data to the extent allowed under Applicable Law.

All information provided by Arrys pursuant to this Section 3.6 is the Confidential Information of Arrys.

3.7 Change of Control of Arrys. The following changes shall automatically be made to this Agreement, effective simultaneously with the effectiveness of a Change of Control of Arrys, without any action of either Party:

(a) Section 3.6(a) shall be deleted and replaced with the following: "Within [***] following the end of each December, Arrys shall provide to AskAt a report summarizing in general terms the Development, Commercialization, and Manufacture of Licensed Products hereunder until (i) the First Commercial Sale of the first Licensed Product or (ii) Arrys, its Affiliates and Arrys's Sublicensees cease all Development of Licensed Products, whichever comes later. Each such report shall include a list of all Arrys Sublicensees and Government Approvals of Licensed Product received."

(b) Section 3.6(d) shall be deleted and replaced with the following: "Notwithstanding anything herein to the contrary, Arrys shall promptly provide AskAt with a copy of safety data Controlled by Arrys or any of its Affiliates or any Arrys Sublicensee that satisfies each of the following requirements: (i) relates to any Licensed Compound or Licensed Product, (ii) could reasonably be expected to affect development of Compartment Specific Products and (iii) is required by a Governmental Authority. AskAt may disclose such safety data to such Governmental Authority if AskAt is required to do so by any Applicable Law or Governmental Authority; provided that AskAt shall request confidential treatment of such data to the extent allowed under Applicable Law."

(c) The last sentence of Section 5.4(d)(v) shall be deleted and replaced with the following: "If the report of the CPA Firm shows that Arrys underpaid and if such discrepancy exceeds the greater of [***] of the amount audited or [***], then the reasonable fees and expenses of the CPA Firm in performing such audit shall be paid by Arrys"; and

Arrys shall give AskAt written notice of negotiations with a Third Party that Arrys reasonably expects will result in a Change of Control of Arrys. Further, Arrys shall give AskAt written notice within [***] of the consummation of a Change of Control of Arrys.

ARTICLE 4

LICENSES, ASSIGNMENT AND EXCLUSIVITY

4.1 Exclusive Licenses to Arrys.

(a) Subject to the terms and conditions of this Agreement, AskAt hereby grants, on behalf of AskAt and its Affiliates, to Arrys and its Affiliates an exclusive (even as to AskAt and its Affiliates but subject to Section 4.1(c)), transferable (as permitted in accordance with Section 12.6), license, with the right to sublicense (through multiple tiers), under the Licensed Technology, to Exploit the Licensed Compounds and Licensed Products in the Field in the Territory. Arrys shall be responsible to AskAt for all acts and omissions of each Arrys Affiliate that exercises rights under this Agreement as if each such act and omission were an act or omission, as applicable, of Arrys.

(b) Each Arrys Sublicensee shall enter into a written agreement with Arrys, one of its Affiliates or the relevant Arrys Sublicensee that is consistent with the relevant terms and conditions of this Agreement. Within [***] after the execution of an agreement that is a Arrys Sublicense, Arrys shall deliver to AskAt a complete and accurate copy of the entire such agreement written in English language. AskAt's receipt of such agreement, however, will constitute neither an approval of such sublicense nor a waiver of any right of AskAt or obligation of Arrys under this Agreement. As between the Parties, Arrys is primarily liable to AskAt for any act or omission of its Affiliate or Arrys's Sublicensees that would be a breach of this Agreement if performed or omitted by Arrys.

(c) AskAt reserves the right to Exploit the Licensed Compound or Licensed Product (i) in the Retention Field worldwide or (ii) outside the Territory. For clarity, the license granted in Section 4.1(a) does not include, expressly or by implication, a license under License Technology to Exploit any Licensed Compound or Licensed Product in the Retention Field or outside the Territory, therefore, in no event will Arrys Exploit the Licensed Compounds and Licensed Product as Compartment Specific Product in the Territory or any product outside the Territory.

(d) Subject to this Agreement, to the extent any Know-How Materials are subject to copyright, or are copyrightable, anywhere in the Territory, AskAt hereby grants, on behalf of AskAt and its Affiliates, to Arrys and its Affiliates an exclusive (even as to AskAt and its Affiliates), transferable (as permitted in accordance with Section 12.6), license, with the right to sublicense (through multiple tiers), under the Know-How Materials, to reproduce, display, distribute, modify and create derivative works and/or perform the works of authorship that are the subject matter of the Know-How Materials in connection with the Exploitation of the Licensed Compounds and Licensed Products in the Field in the Territory.

(e) In the event that any rights in the Field in the Territory revert to AskAt pursuant to the termination, expiration, amendment, amendment and restatement or other event or action with respect to any [***] Agreement, AskAt Outbound Agreement or [***] License Agreement, such rights shall automatically be included in the license grants set forth in Section 4.1(a) and Section 4.1(c) without any further action by a Party.

4.2 No Implied Licenses. Except as explicitly set forth in this Agreement, neither Party grants to the other Party any license or other rights, express or implied, under any intellectual property rights (whether by implication, estoppel or otherwise).

4.3 Assignment of Regulatory Materials. Subject to the terms and conditions of this Agreement, AskAt hereby assigns to Arrys, on behalf of AskAt and its Affiliates, all Regulatory Materials in the Field and in the Territory.

4.4 Exclusivity. During the Term, except as required by (i) the AskAt Outbound Agreements, the [***] Agreements or the [***] License Agreements, or (ii) any other agreements set forth on Schedule 7.2(e)(i), AskAt shall not, and shall cause its Affiliates not to, Exploit any EP4 Antagonist in the Field in the Territory. For clarity, AskAt may Exploit any EP4 Antagonist in the Retention Field worldwide.

4.5 Further Acts. AskAt shall, and shall cause its Affiliates, to take such actions, including making such filings or executing or delivering such documents, instruments and agreements, as Arrys or any of its Affiliates may reasonably request in writing from time to time to perfect the licenses and assignments set forth in this Article 4 or otherwise to carry out the purposes and intents of this Agreement. Arrys shall reimburse AskAt its reasonable, documented out-of-pocket expenses incurred in compliance with this Section 4.5.

ARTICLE 5

FINANCIALS

5.1 Initiation Fee. AskAt shall invoice Arrys for the Initiation Fee as reasonably practicable following the Effective Date and Arrys shall pay the Initiation Fee within [***] after receipt of such invoice. The "**Initiation Fee**" is a one-time, non-refundable, non-creditable payment of [***]. For the avoidance of doubt, the Initiation Fee is payable only once.

5.2 Development Milestones.

(a) 007 Development Milestone. Arrys shall provide AskAt with written notice of the first achievement of the 007 Development Milestone within [***] after the sooner to occur of (i) the first achievement thereof by Arrys or any of its Affiliates or (ii) Arrys obtains knowledge of the achievement of the 007 Development Milestone by a Arrys Sublicensee by virtue of clause (a) of the definition thereof. AskAt shall invoice Arrys for the 007 Development Milestone Fee following receipt of such written notice as soon as reasonably practicable and Arrys shall pay the 007 Development Milestone Fee within [***] after receipt of such invoice. The **"007 Development Milestone Fee"** is a one-time, non-refundable, non-creditable payment of [***]. For the avoidance of doubt, the 007 Development Milestone Fee is payable only once.

(b) 008 Development Milestone. Arrys shall provide AskAt with written notice of the first achievement of the 008 Development Milestone within [***] after the sooner to occur of (i) the first achievement thereof by Arrys or any of its Affiliates or (ii) Arrys obtains knowledge of the achievement of the 008 Development Milestone by a Arrys Sublicensee by virtue of clause (a) of the definition thereof. AskAt shall invoice Arrys for the 008 Development Milestone Fee following receipt of such written notice as soon as reasonably practicable and Arrys shall pay the 008 Development Milestone Fee within [***] after receipt of such invoice. The **"008 Development Milestone Fee"** is a one-time, non-refundable, non-creditable payment of [***]. For the avoidance of doubt, the 008 Development Milestone Fee is payable only once.

5.3 Commercial Milestone Payments.

(a) Arrys shall make each of the one-time commercial milestone payments indicated below to AskAt when annual worldwide Net Sales of all 007 Composition Products that are Royalty-Bearing Products ("**007 Composition Royalty-Bearing Products**") or 008 Composition Products that are Royalty-Bearing Products ("**008 Composition Royalty-Bearing Products**") in the Territory in a given Calendar Year first reach the dollar values indicated below during the Term. If more than one (1) such milestone event is achieved in the same Calendar Year with respect to 007 Composition Royalty-Bearing Products or 008 Composition Royalty-Bearing Products, all the applicable milestone payments shall be due with respect to 007 Composition Royalty-Bearing Products or 008 Composition Royalty-Bearing Products, respectively. By way of example, if all 007 Composition Royalty-Bearing Products achieve Net Sales in the Territory of [***] during a Calendar Year, and Arrys has not previously made a milestone payment with respect to 007 Composition Royalty-Bearing Products pursuant to this Section 5.3(a), then Arrys shall pay AskAt a milestone payment of (i) [***] and (ii) [***] simultaneously for the first and second milestone events identified below. For the avoidance of doubt, (i) each milestone payment set forth in this Section 5.3(a) is payable only once with respect to 007 Composition Royalty-Bearing Products and only once with respect to 008 Composition Royalty-Bearing Products and (ii) Net Sales of 007 Composition Royalty-Bearing Products and Net Sales of 008 Composition Royalty-Bearing Products shall not be aggregated for purposes of achieving the milestone events indicated below.

	Commercial Milestone Event, payable once for all 007 Composition Royalty-Bearing Products	**Milestone Payment (US$)**
(1)	Worldwide annual Net Sales of [***]	[***]
(2)	Worldwide annual Net Sales of [***]	[***]

(3)	Worldwide annual Net Sales of [***]	[***]
(4)	Worldwide annual Net Sales of [***]	[***]

	Commercial Milestone Event, payable once for all 008 Composition Royalty-Bearing Products	**Milestone Payment (US$)**
(1)	Worldwide annual Net Sales of [***]	[***]
(2)	Worldwide annual Net Sales of [***]	[***]
(3)	Worldwide annual Net Sales of [***]	[***]
(4)	Worldwide annual Net Sales of [***]	[***]

(b) Notice; Payment. Arrys shall provide AskAt with written notice of the achievement of the milestone events set forth in this Section 5.3 within [***] after the end of the Calendar Year in which the applicable milestone event was achieved. AskAt shall invoice Arrys following receipt of such written notice as soon as reasonably practicable and Arrys shall pay the associated milestone payment within [***] of the receipt of such invoice.

5.4 Royalties.

(a) Net Sales Royalty. During the Royalty Term, Arrys shall pay to AskAt royalties equal to [***] (the "**Royalty Rate**") of annual worldwide Net Sales, on a Royalty-Bearing Product-by-Royalty-Bearing Product and country-by-country basis (the "**Net Sales Royalty**"). The Net Sales Royalty calculation shall be delivered in writing by Arrys to AskAt within [***] after the end of each applicable Calendar Quarter and shall include the aggregate gross sales of the Royalty-Bearing Products in the Territory during such Calendar Quarter, the corresponding Net Sales and the calculation of the Net Sales Royalty payment payable with respect to such Net Sales (each, a "**Net Sales Statement**"). AskAt shall invoice Arrys following receipt of such written notice as soon as reasonably practicable and Arrys shall pay the associated payment within [***] after the receipt of such invoice. Each Net Sales Statement provided by Arrys shall be deemed final and not subject to challenge two (2) years after the end of the Calendar Quarter to which such Net Sales Statement relates. In addition to the foregoing, each Net Sales Statement shall include (i) the amount of Net Sales received by Arrys or its Affiliates with respect to any Licensed Product and the deductions used in computing the related Net Sales Royalty due hereunder and (ii) the name and address of all Arrys Sublicensees.

(b) Third Parties. In no event shall Arrys be required to contribute to, or otherwise pay for or reimburse, AskAt's payments to Third Parties from which it has received (sub)licenses as of the Effective Date to intellectual property that claims or covers any Licensed Compound or Licensed Product, if any.

(c) No Multiple Royalties. The obligation to pay royalties is imposed only once with respect to Net Sales of the same unit of a Royalty-Bearing Product such that if the Exploitation of any Royalty-Bearing Product is claimed or covered by more than one Valid Claim of the Licensed Patents or encompasses or uses more than one element of Licensed Know-How, multiple royalties shall not be due.

(d) Net Sales Audit Rights.

(i) Arrys shall maintain (and will ensure that its Affiliates maintain) complete and accurate books and records that fairly reflect Net Sales, in sufficient detail to enable AskAt to confirm the accuracy of any payments required hereunder, such books and records and accounts will be retained for [***] after the end of Calendar Year to which they relate.

(ii) AskAt shall have the right to engage, at its own cost and expense, subject to this Section 5.4, an independent internationally recognized public accounting firm chosen by AskAt and reasonably acceptable to Arrys (which accounting firm shall not be the external auditor of AskAt, shall not have been hired or paid on a contingency basis and shall have experience auditing pharmaceutical companies) (a "**CPA Firm**") to conduct an audit of Arrys for the purposes of confirming Arrys's compliance with the Net Sales Royalty provisions of this Agreement.

(iii) The CPA Firm shall be given access to and shall be permitted to examine such books and records of Arrys, and to interview employees of Arrys, as the CPA Firm shall reasonably request, upon [***] prior written notice having been given by AskAt, during regular business hours, for the sole purpose of determining compliance with the Net Sales Royalty provisions of this Agreement. Prior to any such examination taking place, the CPA Firm shall enter into a confidentiality agreement reasonably acceptable to Arrys with respect to the Know-How to which they are given access and shall not contain in its report or otherwise disclose to AskAt or any Third Party any information other than the existence of a discrepancy between the Net Sales Royalty paid by Arrys and the amounts payable hereunder and the amount of such discrepancy.

(iv) The CPA Firm shall discuss its preliminary findings with Arrys prior to the preparation by the CPA firm of its final report. The CPA Firm shall provide both AskAt and Arrys simultaneously the written report of the CPA Firm with respect to its findings. In the event of any dispute between AskAt and Arrys regarding the findings of any such inspection or audit, the Parties shall initially attempt in good faith to resolve the dispute amicably between themselves, and if the Parties are unable to resolve such dispute within [***] after delivery to both Parties of the CPA Firm's report, the Parties shall select one (1) internationally recognized independent certified public accounting firm (other than the CPA Firm) to resolve the dispute, and such accounting firm's determination shall be binding on both Parties absent manifest error by such accounting firm.

(v) Within [***] after completion of the CPA Firm's audit, Arrys shall pay to AskAt any undisputed deficiency in the Net Sales Royalty amount determined by the CPA Firm, plus interest at the rate set forth in Section 5.7 from the date originally due. If the report of the CPA Firm shows that Arrys overpaid, then Arrys shall be entitled to off-set such overpayment against any Net Sales Royalty owed to AskAt then or in any subsequent period. If the report of the CPA Firm shows that Arrys underpaid and if such discrepancy exceeds the greater of [***] of the amount audited or [***], then all the fees and expenses of the CPA Firm in performing such audit shall be paid by Arrys.

(vi) AskAt's exercise of its audit rights under this Section 5.4(d) may not (A) be conducted for any Calendar Quarter more than [***] after the end of such Calendar Quarter to which such books and records pertain, (B) be conducted more than once in any Calendar Year, or (C) be repeated for any Calendar Quarter.

(vii) AskAt shall not have the right to audit Arrys Sublicensee(s) directly, but in connection with an audit of Arrys under this Section 5.4(d), AskAt shall have the right to cause Arrys to audit the applicable Arrys Sublicensee(s) using the CPA Firm conducting the audit under this Section 5.4(d).

(e) Mode of Payment; Currency Conversion. All payments under this Agreement, shall be made by deposit of U.S. Dollars in the requisite amount to such bank account as AskAt may from time to time designate by notice to Arrys. For the purpose of calculating any sums due under this Agreement (including the calculation of Net Sales expressed in currencies other than U.S. Dollars), Arrys shall convert any amount expressed in a foreign currency into U.S. Dollar equivalents using Arrys's (or its Affiliate's or Arrys Sublicensee's standard conversion methodology consistent with U.S. generally accepted accounting principles (GAAP) or international financial reports standards (IFRS), as applicable, in a manner consistent with such Person's normal practices used to prepare its audited financial reports; *provided* that, such practices use a widely accepted source of published exchange rates. Notwithstanding the foregoing, the currency conversion methodology to be used for calculating any sums due under this Agreement in connection with any sales or other transfers of Royalty-Bearing Product by any Arrys Sublicensee shall be the methodology agreed to by Arrys and any of its Affiliates with such Arrys Sublicensee. Any reporting of currency conversion hereunder shall reflect the currency conversion methodology agreed to by Arrys and any of its Affiliates with a Arrys Sublicensee.

(f) Blocked Payments. In the event that, by reason of applicable Laws or regulations in any country, it becomes impossible or illegal for Arrys or its Affiliates to transfer, or have transferred on its behalf, royalties or other payments to AskAt, such royalties or other payments shall be deposited in local currency in the relevant country to the credit of AskAt in a recognized banking institution designated by AskAt or, if none is designated by AskAt within a period of [***], in a recognized banking institution selected by Arrys.

(g) Taxes. Where required by Applicable Law, Arrys shall have the right to withhold applicable taxes from any payments to be made by Arrys to AskAt pursuant to this Agreement; *provided that*, to the extent allowed by Applicable Law, prior to such withholding, Arrys shall give written notice of its intention to withhold and allow AskAt reasonably sufficient time to provide any documentation or forms to the applicable Governmental Authority to minimize or eliminate such withholding. Arrys shall provide AskAt with receipts from the appropriate taxing authority for all payments of taxes withheld and paid by Arrys to such authorities on behalf of AskAt. AskAt shall have the right to appeal to the appropriate taxing authority any such withholding and payment of such taxes.

(h) No Other Compensation. Other than as explicitly set forth (and as applicable) in this Agreement, Arrys shall not be obligated to pay any additional fees, milestone payments, royalties or other payments of any kind to or on behalf of AskAt or its Affiliates under this Agreement.

5.5 Right to Set-off. Either Party shall have the right to deduct from amounts otherwise payable hereunder to the other Party any amounts payable to such Party (or its Affiliates) from the other Party (or its Affiliates) under this Agreement that have been determined by a final, non-appealable judgment by a court of competent jurisdiction or otherwise agreed to by the Parties.

5.6 Right to terminate. Arrys's failure to make any undisputed payments required hereunder, shall be a material breach hereof, subject to Section 10.3(a).

5.7 Late payment. Any payment not delivered on time shall accrue interest from the date due until paid in full at the rate of the lower of [***] or the highest rate allowed under Applicable Laws.

ARTICLE 6

INTELLECTUAL PROPERTY

6.1 Ownership of IP.

(a) Ownership shall follow inventorship for all Inventions developed, created, conceived or reduced to practice by or on behalf of the Parties in connection with and during the Term of this Agreement, with inventorship being determined in accordance with United States patent laws (regardless of where the applicable activities occurred).

(b) Subject to the terms and conditions of this Agreement, Arrys, on behalf of itself and its Affiliates, hereby grants to AskAt and its Affiliates, a non-exclusive, perpetual, fully paid-up, royalty-free, non-sublicensable, transferable solely as permitted by Section 12.6, license under all Know-How and Inventions Controlled by Arrys or any of its Affiliates that solely relate to a Licensed Compound, Licensed Product, or Treatment Product and were developed, created, conceived or reduced to practice solely or jointly by or on behalf of Arrys in connection with this Agreement, in each case, solely to Exploit EP4 Antagonists (i) outside the Territory or (ii) in the Retention Field worldwide; provided that in the event of a Change of Control of Arrys or any of its Affiliates, the scope of the Know-How and Inventions licensed to AskAt and its Affiliates pursuant to this Section 6.1(b) shall constitute only that Know-How and those Inventions Controlled by Arrys or any of its Affiliates prior to such Change of Control.

6.2 Prosecution, Maintenance & Enforcement.

(a) Prosecution & Maintenance of Licensed Technology.

(i) Except as set forth below in Section 6.2(b), as of the Effective Date and as between the Parties, AskAt shall, through counsel mutually acceptable to the Parties and directed by AskAt, control the preparation, filing for, and prosecution and maintenance of (including the defense of any oppositions, interferences, reissue proceedings, re-examinations and other post-grant proceedings originating in a patent office) all intellectual property rights pertaining to the Licensed Technology in the Field in the Territory, *provided that* AskAt shall consider in good faith all input received from Arrys regarding such prosecution and maintenance. Arrys shall reimburse AskAt the reasonable out-of-pocket expenses incurred by AskAt pursuant to this Section 6.2(a)(i) within [***] following receipt of a reasonably detailed invoice therefor; provided that in no event will Arrys be required to reimburse AskAt for any expenses for which a Third Party is obligated to reimburse AskAt or for which a Third Party previously reimbursed AskAt.

(ii) AskAt shall provide Arrys and Arrys's patent counsel copies of communications received by AskAt regarding any Licensed Patent. AskAt shall keep Arrys advised of the status of all material communications, notices and actions submitted to or received from the relevant patent authorities, actual and prospective filings or

submissions regarding Licensed Patents, and shall give Arrys copies of and a reasonable opportunity to review and comment on any such communications, filings and submissions proposed to be sent to any patent office or judicial body. AskAt shall consider in good faith Arrys's comments on the communications, filings and submission for the Licensed Patents.

(iii) If AskAt declines to file for, prosecute or maintain (including defending or prosecuting office actions, prosecutions or interferences) any Licensed Patent, it shall give Arrys reasonable notice thereof and thereafter, Arrys may, upon written notice to AskAt and at Arrys's sole cost, control the filing for, prosecution and maintenance of such Licensed Patent thereafter in accordance with this Section 6.2(a), *mutatis mutandis*; provided that Arrys shall not exercise any rights under this Section 6.2(a)(iii) with respect to a particular Licensed Patent, if AskAt determined in its reasonable business judgment that filing for, prosecuting or maintaining (including defending or prosecuting office actions, prosecutions or interferences) such Licensed Patent would not be in AskAt's best interest.

(iv) Within [***] after the Effective Date, AskAt shall (to the extent not previously provided) provide Arrys, at Arrys's cost, with copies of all documents (including file histories and a [***] report) for the Licensed Patents that are in the file maintained by AskAt's in-house or outside patent counsel or otherwise available to AskAt, including any communications, filings and drafts including all electronic versions in Word format as well as written notice of any pending deadlines or communications for such Patents; provided, however, that AskAt shall provide notice of pending deadlines as promptly as possible after the Effective Date so as to ensure adequate time and coordination with respect to such deadlines. In the event Arrys assumes control of the preparation of, filing for, and prosecution and maintenance (including the defense of any oppositions, interferences, reissue proceedings, re-examinations and other post-grant proceedings originating in a patent office) with respect to any Licensed Patents pursuant to Section 6.2(a)(iii), then AskAt shall, at Arrys's cost, (A) provide Arrys with copies of any relevant communications, filings, drafts and documents not previously provided to Arrys as well as written notice of any pending deadlines or communications applicable thereto, and (B) execute and deliver any legal papers reasonably requested by Arrys to effectuate transfer of control of the filing, prosecution and maintenance of such Patents (excluding papers that transfer any right, title or interest in or to the Licensed Patents other than such control).

(b) Prosecution & Maintenance of Joint Patents.

(i) Notwithstanding Section 6.2(a), as of the Effective Date and as between the Parties, Arrys shall, through counsel mutually acceptable to the Parties and directed by Arrys, control the preparation, filing for, and prosecution and maintenance of (including the defense of any oppositions, interferences, reissue proceedings, re-examinations and other post-grant proceedings originating in a patent office) all Joint Patents in all fields throughout the world, *provided that* Arrys shall consider in good faith all input received from AskAt regarding such prosecution and maintenance. The Parties shall equally share expenses incurred pursuant to this Section 6.2(b)(i), with each Party reimbursing [***] of the other Party's reasonable out-of-pocket expenses incurred by such other Party pursuant to this Section 6.2(b)(i) within thirty (30) days following receipt of a reasonably detailed invoice therefor; provided that in no event will Arrys be required to reimburse AskAt for any expenses for which a Third Party is obligated to reimburse AskAt or for which a Third Party previously reimbursed AskAt.

(ii) Arrys shall provide AskAt and AskAt's patent counsel copies of communications received by Arrys regarding any Joint Patent. Arrys shall keep AskAt advised of the status of all material communications, notices and actions submitted to or received from the relevant patent authorities, actual and prospective filings or submissions regarding Joint Patents, and Arrys shall give AskAt copies of and a reasonable opportunity to review and comment on any such communications, filings and submissions proposed to be sent to any patent office or judicial body. Arrys shall consider in good faith AskAt's comments on the communications, filings and submission for the Joint Patents.

(iii) If Arrys declines to file for, prosecute or maintain (including defending or prosecuting office actions, prosecutions or interferences) any Joint Patent, it shall give AskAt reasonable notice thereof and thereafter, AskAt may, upon written notice to Arrys and at AskAt's sole cost, control the filing for, prosecution and maintenance of such Joint Patent thereafter in accordance with this Section 6.2(b), *mutatis mutandis*; provided that AskAt shall not exercise any rights under this Section 6.2(b)(iii) with respect to a particular Joint Patent, if Arrys determined in its reasonable business judgment that filing for, prosecuting or maintaining (including defending or prosecuting office actions, prosecutions or interferences) such Joint Patent would not be in Arrys's best interest.

(iv) In the event AskAt assumes control of the preparation of, filing for, and prosecution and maintenance (including the defense of any oppositions, interferences, reissue proceedings, re-examinations and other post-grant proceedings originating in a patent office) with respect to any Joint Patents pursuant to Section 6.2(b)(iii), then Arrys shall, at AskAt's cost, (A) provide AskAt with copies of any relevant communications, filings, drafts and documents not previously provided to AskAt as well as written notice of any pending deadlines or communications applicable thereto, and (B) execute and deliver any legal papers reasonably requested by AskAt to effectuate transfer of control of the filing, prosecution and maintenance of such Patents (excluding papers that transfer any right, title or interest in or to the Joint Patents other than such control).

(c) Other Patents. Except as set forth above, each Party have the sole right, responsibility and discretion to file, prosecute (including the defense of any oppositions, interferences, reissue proceedings, re-examinations and other post-grant proceedings originating in a patent office) maintain and enforce intellectual property rights owned or controlled by such Party at its sole cost and expense.

6.3 Defense and Settlement of Third Party Claims.

(a) Licensed Compounds and Licensed Products.

(i) From and after the Effective Date, if a Third Party asserts that a Patent or other right owned by it is infringed by the Exploitation of any Licensed Compound or Licensed Product in the Field in the Territory, Arrys shall have the first right to control the defense of any such Third Party claims at Arrys's sole cost and expense and to elect to settle such claims (except as set forth below). AskAt shall assist

Arrys and cooperate in any such litigation at Arrys's request, and Arrys shall reimburse AskAt any reasonable, documented out-of-pocket costs incurred in connection therewith. AskAt may join any defense pursuant to this Section 6.3, with its own counsel, at its sole cost and expense. Arrys shall not settle or consent to the entry of any judgment in any enforcement action hereunder without AskAt's prior written consent, not to be unreasonably withheld, conditioned or delayed.

(ii) Should Arrys fail to defend against any such assertion within [***] prior to the applicable non-extendable deadline for doing so, AskAt shall have the right to do so, at AskAt's sole cost and expense; provided that AskAt shall not exercise any rights under this Section 6.3 if Arrys determined in its reasonable business judgment that defending against the relevant Third Party assertion would not be in Arrys's best interest. In the event that AskAt exercises rights under this Section 6.3: (i) Arrys shall reasonably assist AskAt and reasonably cooperate in any such litigation at AskAt's request, and AskAt shall reimburse Arrys any reasonable, documented out-of-pocket costs incurred in connection therewith, (ii) Arrys may join any such defense brought by AskAt pursuant to this Section 6.3, with its own counsel, at its sole cost and expense, and (iii) AskAt shall not settle any assertions or consent to the entry of any judgment that adversely affects Arrys's rights in any litigation being defended hereunder without Arrys's prior written consent, not to be unreasonably withheld, conditioned or delayed.

(b) General. Without limiting the foregoing in this Section 6.3,

(i) (A) either party shall give the other party prompt written notice of any allegation by any Third Party that a Patent or other right owned by it is infringed by the Exploitation of any Licensed Compound or Licensed Product and (B) either party shall pay to the other party any amounts due under this Section 6.3 within [***] of the date of the relevant invoice; and

(ii) if a Party is obligated under Section 8.1 or Section 8.2 to indemnify the other Party (including any Arrys Indemnitee with respect to indemnification of Arrys and including any AskAt Indemnitee with respect to indemnification of AskAt) with respect to a Third Party assertion of infringement, then the process described in Section 8.3 shall govern the procedure for defending against such claim rather than this Section 6.3.

6.4 Enforcement.

(a) In the event that (i) AskAt or Arrys becomes aware of any actual or suspected infringement of any Licensed Patent in the Field in the Territory, (ii) any Licensed Patent is challenged in any action or proceeding (other than any interferences, oppositions, reissue proceedings or re-examinations, which are addressed in Section 6.2) or (iii) AskAt or Arrys receives a Notice of Paragraph IV Patent certification as described in Section 6.6(c) with respect to a Licensed Patent, such Party shall notify the other Party promptly (an "**Infringement Notice**"), and following such Infringement Notice, the Parties shall confer. To the extent permitted by Applicable law, Arrys shall have the first right to defend any such action or proceeding or bring an infringement action with respect to such infringement at its own expense, in its own name and entirely under its own direction and control, or settle any such action or proceeding by sublicense (including, at Arrys's sole discretion, granting a sublicense, covenant not to sue or other right with respect to a compound or product (including a Generic Product) in the Field in the Territory). AskAt shall, at Arrys's costs, assist Arrys and shall agree to be

named or to join in any action or proceeding being defended or prosecuted if so requested. Even if AskAt elects to be represented by legal counsel or if AskAt is required to be named in or joined in such action or proceeding or is joined in such action or proceeding at Arrys's request, Arrys shall bear all of AskAt's related and reasonable legal costs and expenses arising out of this Section 6.4(a).

(b) Should Arrys fail to defend against any action or proceeding or bring an infringement action as permitted above within [***] following the date of the relevant Infringement Notice, AskAt shall have the right to do so, at AskAt's sole cost and expense; provided that AskAt shall not exercise any rights under this Section 6.4(b), if Arrys determined in its reasonable business judgment that defending against the relevant action or proceeding or bringing an infringement action would not be in Arrys's best interest. In the event that AskAt exercises rights under this Section 6.4(b): (i) Arrys shall reasonably assist AskAt in any action or proceeding being defended or prosecuted if so requested, and shall be named in or join such action or proceeding if requested by AskAt; AskAt shall reimburse Arrys any reasonable, documented out-of-pocket costs incurred in connection therewith, (ii) Arrys may join any such action or proceeding being defended or prosecuted by AskAt pursuant to this Section 6.4(b), with its own counsel, at its sole cost and expense and (iii) AskAt shall not settle any assertions or consent to the entry of any judgment that adversely affects Arrys's rights in any action or proceeding being defended or prosecuted without Arrys's prior written consent, not to be unreasonably withheld, conditioned or delayed.

(c) Damages. In the event that either Party exercises the rights conferred in this Section 6.4 and recovers any damages, payments or other sums in such action or proceeding or in settlement thereof, such damages or other sums recovered shall first be applied to all out-of-pocket costs and expenses incurred by the Parties in connection therewith (including attorney's fees). If such recovery is insufficient to cover all such costs and expenses of both Parties, the Parties shall be paid pro-rata in proportion to the total amount of costs and expenses incurred by each Party. If after such reimbursement any funds shall remain from such damages or other sums recovered, such funds shall be retained by Arrys; *provided, however*, the remaining recovery shall be treated as Net Sales hereunder and subject to the terms and conditions set forth in Section 5.4.

6.5 Trademarks. Arrys shall solely own all right, title and interest in and to any trademarks (hereinafter "Arrys's trademarks") adopted for use with the Licensed Products in the Field in the Territory, and shall be responsible for the registration, filing, maintenance and enforcement thereof. AskAt shall not at any time do or authorize to be done any act or thing which is likely to materially impair the rights of Arrys's trademarks, and shall not at any time claim any right of interest in or to such marks or the registrations or applications therefor. AskAt shall not use Arrys's trademarks or any confusingly similar trademarks in a manner that might amount to infringement, dilution, unfair competition or passing off of any of Arrys's trademarks without Arrys's consent.

6.6 Patent Extensions; Orange Book Listings; Patent Certifications.

(a) Patent Term Extension. If elections with respect to obtaining patent term extension or supplemental protection certificates or their equivalents in any country with respect to any Licensed Product becomes available, the first Party to receive Regulatory Approval therefor shall have the sole right to decide whether to file for patent term extension or supplemental protection certificates or their equivalents and to determine which issued patent to extend. Each Party shall, at its cost, cooperate with the other so as to enable the relevant Party

to exercise its rights under this Section 6.6(a). Such cooperation includes promptly executing all documents, requiring inventors to be available to discuss and review any filings, and requiring inventors, subcontractors, employees, consultants and agents of a Party to execute all documents, as reasonable and appropriate so as to enable to the relevant Party to exercise its rights under this Section 6.6(a). In the event that the first Party to receive regulatory approval for a Licensed Product does not exercise its rights under this Section 6.6(a) prior to receipt of Regulatory Approval for a Licensed Product by the other Party, such other Party may exercise all rights under this Section 6.6(a). as if such Party were the first to receive Regulatory Approval of any Licensed Product.

(b) Regulatory Exclusivity and Orange Book Listings. With respect to regulatory exclusivity periods (such as orphan drug exclusivity and any available pediatric extensions), Arrys shall have the sole responsibility and right to seek and maintain all such regulatory exclusivity periods that may be available for the Licensed Products in the Field in the Territory. Arrys shall have the sole right to make all filings in the FDA's *Approved Drug Products with Therapeutic Equivalence Evaluations* and all equivalents in any country in the Territory with respect to the Licensed Products in the Field in the Territory.

(c) Notification of Patent Certification. AskAt and Arrys shall each notify and provide the other Party with copies of any notice of a Paragraph IV Patent Certification (including any associated documents) by a Third Party filing an ANDA, an application under §505(b)(2) of the FD&C Act (as amended or any replacement thereof), or any other similar patent certification by a Third Party, and any foreign equivalent thereof. Such notification and copies shall be provided to the other Party within [***] after receipt of such notification and shall be sent to the address set forth in Section 12.3.

ARTICLE 7

REPRESENTATIONS, WARRANTIES AND COVENANTS

7.1 Mutual Representations, Warranties and Covenants. Each Party hereby represents and warrants to the other Party as of the Effective Date, and covenants, as applicable, as a material inducement for such other Party's entry into this Agreement, as follows:

(a) Corporate Existence and Power. It is a company or corporation duly organized, validly existing, and in good standing under the laws of the jurisdiction in which it is incorporated, and has full corporate power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted and as contemplated in this Agreement, including the right to grant the licenses granted by it hereunder.

(b) Authority and Binding Agreement. (i) It has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder; (ii) it has taken all necessary corporate action on its part required to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder; and (iii) this Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid, and binding obligation of such Party that is enforceable against it in accordance with its terms.

(c) No Conflict. It is not a party to and shall not enter into any agreement that would prevent it from granting the rights or exclusivity granted or intended to be granted to the other Party under this Agreement or performing its obligations under this Agreement.

(d) Bankruptcy; Insolvency. It is not aware of any action or petition, pending or otherwise, for bankruptcy or insolvency of such Party or its Affiliates or subsidiaries in any state, country or other jurisdiction, and it is not aware of any facts or circumstances that could result in such Party becoming or being declared insolvent, bankrupt or otherwise incapable of meeting its obligations under this Agreement as they become due in the ordinary course of business.

(e) No Debarment. Such Party is not debarred, has not been convicted, and is not subject to debarment or conviction pursuant to Section 306 of the FD&C Act. In the course of the Research or Development of Licensed Compounds or Licensed Products, such Party has not, to its knowledge, used prior to the Effective Date, and shall not use, during the Term, any employee, consultant, agent or independent contractor who has been debarred by any Regulatory Authority, or, to such Party's knowledge, is the subject of debarment proceedings by a Regulatory Authority or has been convicted pursuant to Section 306 of the FD&C Act.

(f) Compliance with Applicable Law. Each Party shall comply with the Applicable Law in the course of performing its obligations or exercising its rights pursuant to this Agreement. Without limiting the foregoing, Arrys shall comply with Applicable Law related to recalls of, and safety and reporting requirements with respect to, Licensed Products Exploited by Arrys.

7.2 Representations, Warranties and Covenants by AskAt. AskAt hereby represents, warrants and covenants to Arrys as of the Effective Date, and covenants to Arrys, as applicable, as material inducement for Arrys's entry into this Agreement and the grant of licenses and rights from AskAt to Arrys hereunder, as follows:

(a) No IP Conflicts. As of the Effective Date, neither AskAt nor any of its Affiliates has entered into any agreement (other than agreements with subcontractors) granting any right, interest or claim in or to, any Licensed Technology to any Third Party that would conflict with the licenses and other rights granted to Arrys under this Agreement. All intellectual property rights owned by AskAt and its Affiliates relating to the Licensed Compounds or Licensed Products are Controlled by AskAt and are included in the Licensed Technology. Following the Effective Date, AskAt shall not enter into any agreement with any Affiliate or Third Party that conflicts with or contradicts the terms and conditions set forth in this Agreement, including any agreement that would limit the grant of licenses or rights hereunder to the Licensed Technology. All Licensed Technology existing as of the Effective Date is exclusively owned by AskAt, and is free and clear of any (i) liens, charges, security interests, and encumbrances or licenses and (ii) claims or covenants that would conflict with or limit the scope of any of the rights or licenses granted to Arrys hereunder or would give rise to any Third Party claims for payment against Arrys or its Affiliates. Except as set forth on Schedule 7.2(a), none of the Licensed Technology existing as of the Effective Date is in-licensed by AskAt.

(b) No Notice of Infringement or Misappropriation. As of the Effective Date, (i) AskAt has not received and is not aware of any written notice from any Third Party asserting or alleging that any research, development, use, manufacture, sale, offer for sale, importation or exportation of Licensed Technology, Licensed Compounds or Licensed Products has infringed

or misappropriated, or would infringe or misappropriate, the intellectual property rights of any Third Party, and (ii) no claim is pending, and AskAt and its Affiliates and, to AskAt's knowledge, any Third Party collaborator, has not received from a Third Party notice of a claim or threatened claim to the effect that any granted Patent within the Licensed Technology under this Agreement is invalid or unenforceable. Additionally, to AskAt's knowledge, there is no unauthorized use, infringement or misappropriation of any Licensed Technology by any Third Party as of the Effective Date.

(c) No Misappropriation. To the knowledge of AskAt, as of the Effective Date, (i) the development, creation, conception and reduction to practice of any inventions and, to the knowledge of AskAt, the use, development, creation, conception and reduction to practice of any other Know-How within Licensed Technology have not constituted or involved the misappropriation of trade secrets or other rights or property of any Third Party, and (ii) no employee, consultant, agent or independent contractor of AskAt, or Third Party, has misappropriated any Licensed Technology. To the knowledge of AskAt, as of the Effective Date, no intellectual property right of a Third Party would be infringed, misappropriated or otherwise violated by use of the Licensed Technology or the Exploitation of the Licensed Compounds or Licensed Products.

(d) Licensed Technology. To the knowledge of AskAt, as of the Effective Date, the Patents set forth on Exhibit A under the heading Composition Patents are the only Patents within the Licensed Technology existing as of the Effective Date that claim or cover the Licensed Compounds. The Licensed Patents have been diligently prosecuted in the respective patent offices indicated thereon with respect to each Patent in accordance with Applicable Law, have been filed and maintained properly and correctly and all applicable fees have been paid on or before the due date for payment, and to the knowledge of AskAt and its Affiliates, is not invalid or unenforceable, in whole or in part. The Patents set forth on Exhibit A collectively represent the only Patents within AskAt's or any of its Affiliates' Control relating to the Licensed Compounds or Licensed Products, or the Exploitation thereof, as of the Effective Date.

(e) Third Party Agreements.

(i) Schedule 7.2(e)(i) contains a complete and accurate list of each license agreement, material transfer agreement, sales and purchase agreement, collaboration agreement or research agreement which is effective as of the Effective Date between each of AskAt or any of its Affiliates with any Third Party relating to any of the Licensed Technology, Licensed Compounds or Licensed Products, other than agreements with subcontractors for the manufacturing of Drug Substance.

(ii) To the knowledge of AskAt, Schedule 7.2(e)(ii) contains a complete and accurate list of all material agreements between or among [***] and any Third Party that relate to any of the Licensed Technology, Licensed Compounds or Licensed Products, other than agreements with subcontractors for the manufacturing of Drug Substance.

(f) Disclosure of Know-How. Licensed Know-How provided by or on behalf of AskAt to Arrys or its agents or representatives prior to or on the Effective Date with respect to this Agreement was and is true, accurate and complete in all material respects, and AskAt has not disclosed, failed to disclose or caused to be disclosed any Know-How or data that could reasonably be expected to be misleading in any material respect.

(g) Assignments.

(i) AskAt has secured from all of its employees who have contributed to the development, creation, conception or invention of any of the Licensed Technology a written agreement assigning to AskAt all rights to such developments, creations, conceptions or inventions, or Licensed Technology, and as of the Effective Date, AskAt has not received any written communication challenging AskAt's ownership or right to the Licensed Technology, unless such an agreement with the inventor is not required under Applicable Law for ownership in such Licensed Technology to vest in AskAt.

(ii) To AskAt's knowledge, [***] has secured from all of its employees, consultants, contractors and other Persons who have contributed to the development, creation, conception or invention of any of the Licensed Technology a written agreement assigning to [***] all rights to such developments, creations, conceptions or inventions, or Licensed Technology, and [***] has not received any written communication challenging [***] ownership or right to the Licensed Technology, unless such an agreement with the inventor is not required under Applicable Law for ownership in such Licensed Technology to vest in [***].

(h) All Material Information Provided. AskAt has provided or made available to Arrys or its agents or representatives all material information that is in AskAt's or its Affiliates' possession concerning the Licensed Compounds, the Licensed Products and the Licensed Technology, including relevant to the safety or efficacy of such Licensed Compounds and Licensed Products, and all material Regulatory Materials and other material correspondence with Regulatory Authorities relating to any such Licensed Compound or Licensed Product, and all such information is accurate, complete and true in all material respects;

(i) Conduct of Research and Development. AskAt has conducted all Research and Development of Licensed Compounds and Licensed Products in accordance with all Applicable Law. To the knowledge of AskAt, [***] has conducted all Research and Development of Licensed Compounds and Licensed Products in accordance with all Applicable Law.

(j) No Third Party Consent Rights. AskAt may enter into this Agreement without obtaining, or seeking, consent from, or providing notice to, any Third Party. AskAt's execution of this Agreement absent any such consent or notice does not conflict with any agreement between or among AskAt and any Third Party or Third Parties.

7.3 Additional Covenants Regarding Agreements with Third Parties. AskAt agrees that during the Term:

(a) Without Arrys's prior written consent, AskAt shall not modify or amend any [***] Agreement or AskAt Outbound Agreement in a manner that would reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys. AskAt shall provide Arrys with a copy of any amendment, side letter or other modification to any Ask-At [***] Agreement or AskAt Outbound Agreement;

(b) AskAt shall use commercially reasonable efforts to prevent the modification or amendment to any [***] License Agreement in a manner that would reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys. AskAt shall use commercially reasonable efforts to provide Arrys with a copy of any amendment, side letter or other modification to any [***] License Agreement;

(c) Without Arrys's prior written consent, AskAt shall not terminate any [***] Agreement in whole or in part if doing so would reduce or otherwise limit any of the rights granted to Arrys under this Agreement;

(d) AskAt shall use commercially reasonable efforts to prevent the termination of any [***] License Agreement in whole or in part if the termination thereof would reduce or otherwise limit any of the rights granted to Arrys under this Agreement;

(e) Without Arrys's prior written consent, AskAt shall not exercise or fail to exercise any of AskAt's rights or obligations under any [***] Agreement or AskAt Outbound Agreement in a manner that would reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on or have an adverse effect on Arrys; and, at the reasonable request of Arrys, AskAt shall exercise such rights and perform obligations that relate to Licensed Compounds, Licensed Products or Arrys's rights thereunder in such manner as Arrys requests and is permitted under any of the AskAt-RaQualia Agreements or AskAt Outbound Agreements;

(f) AskAt shall use commercially reasonable efforts to cause each party (other than AskAt) to any [***] Agreement, [***] License Agreement or AskAt Outbound Agreement to exercise or, not to fail to exercise, any rights or obligations under any such Agreement in a manner that would reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys;

(g) AskAt shall promptly provide Arrys with copies of all reports and other material communications that AskAt provides to any party under any of the [***] Agreements or the AskAt Outbound Agreements, *provided* that AskAt may redact any confidential technical or financial information that does not relate to Licensed Compounds, Licensed Products or Arrys's rights hereunder;

(h) (i) Without limiting Section 7.3(g), AskAt shall promptly provide Arrys with copies of all safety data Controlled by AskAt or any of its Affiliates or any other licensee of AskAt that satisfies each of the following requirements: (A) relates to any Licensed Compound or Licensed Product and (B) could reasonably be expected to affect development of Licensed Compounds or Licensed Products in the Field in the Territory. Arrys may use such data solely for developing, and having Third Parties develop for Arrys's benefit, Licensed Compounds or Licensed Products. Without limiting the foregoing, in no event may Arrys allow such data to be Exploited in the Retention Field regardless of whether inside or outside the Territory.
(ii) Notwithstanding anything herein to the contrary, following a written request from Arrys, AskAt shall promptly provide Arrys with a copy of all such safety data that relates to any Licensed Compound or Licensed Product and that is required by a Governmental Authority, and Arrys may disclose such safety data to such Governmental Authority if Arrys is required to do so by any Applicable Law or Governmental Authority; provided that Arrys shall request confidential treatment of such data to the extent allowed under Applicable Law.

(i) AskAt shall promptly notify Arrys of, and provide a copy of, any material communications that AskAt receives related to any of the [***] Agreements, [***] License Agreements or AskAt Outbound Agreements (including notices of improvements), *provided* that AskAt may redact any confidential technical or financial information that does not that relate to Licensed Compounds, Licensed Products or Arrys's rights hereunder;

(j) AskAt shall promptly notify Arrys if AskAt knows or reasonably believes that any party shall not be able to comply with the terms and conditions of any [***] Agreement, [***] License Agreement or AskAt Outbound Agreement and such non-compliance could reasonably be expected to reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys;

(k) AskAt shall notify Arrys of, and provide a copy of, any notices received by AskAt relating to any alleged breach by any party under a [***] Agreement, [***] License Agreement or AskAt Outbound Agreement within [***] after AskAt's receipt thereof; in addition, if AskAt should at any time breach a [***] Agreement or AskAt Outbound Agreement or become unable to timely perform its obligations thereunder, or is aware of any party breaching of [***] Agreement, [***] License Agreement or AskAt Outbound Agreement or is aware that a party thereto has become unable to timely perform its obligations thereunder, and in any such case, such breach or non-performance could reasonably be expected to reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys then AskAt shall immediately notify Arrys;

(l) If AskAt cannot cure or otherwise resolve any alleged breach by AskAt under an [***] Agreement or AskAt Outbound Agreement and such breach could reasonably be expected to reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys, AskAt shall so notify Arrys within [***] of AskAt's first becoming aware of such inability, which shall not be less than [***] prior to the expiration of the cure period under such AskAt Third Party Agreement; *provided* that AskAt shall use commercially reasonable efforts to cure or otherwise resolve any such alleged breach;

(m) If AskAt is aware of any alleged breach by [***] under a [***] Agreement or [***] License Agreement and such breach could reasonably be expected to reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys, AskAt shall so notify Arrys within five (5) Business Days of AskAt's first becoming aware of such inability;

(n) In the event of any alleged breach by AskAt under a [***] Agreement or AskAt Outbound Agreement that could reasonably be expected to reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys, if AskAt has not cured or otherwise resolved any such alleged breach at least [***] prior to the expiration of the cure period under such [***] Agreement or AskAt Outbound Agreement, then AskAt shall immediately notify Arrys and Arrys, in its sole discretion, shall be permitted to cure such breach under such [***] Agreement or AskAt Outbound Agreement in accordance with the terms and conditions of such [***] Agreement or AskAt Outbound Agreement or otherwise resolve such breach directly with the other party to such [***] Agreement or AskAt Outbound Agreement; and, if Arrys pays any amounts owed or alleged to be owed by AskAt, Arrys may deduct such amounts from milestone payments and royalties Arrys is required to make to AskAt hereunder;

(o) In the event of any alleged breach by [***] under a [***] Agreement or [***] License Agreement that could reasonably be expected to reduce or otherwise limit any of the rights granted to Arrys under this Agreement or impose additional obligations on Arrys, AskAt shall use commercially reasonable efforts to cause [***] to cure or otherwise resolve any such

alleged breach at least [***] prior to the expiration of the cure period under such [***] Agreement or [***] License Agreement and if such alleged breach has not been cured or otherwise resolved at least [***] prior to the expiration of the relevant cure period under this applicable agreement, then AskAt shall immediately notify Arrys and the Parties will discuss whether they can take action to cure such breach; and

(p) In the event that any rights that have been granted to a Third Party with respect to any of the Licensed Technology pursuant to any of the [***] Agreements, [***] License Agreement or AskAt Outbound Agreement revert to AskAt, or are otherwise come into AskAt's possession, AskAt shall (i) not grant or otherwise convey any such rights to a Third Party in the Field in the Territory and (ii) ensure that any grant or other conveyance of such rights to a Third Party outside the Field or outside the Territory are consistent with, and do not reduce or otherwise limit, the rights granted to Arrys under this Agreement.

7.4 Survival of Arrys's Rights. The Parties agree that in the event of any termination of any AskAt Third Party Agreement with respect to any intellectual property rights sublicensed to Arrys hereunder, Arrys shall have any rights available under such Third Party Agreement to become a direct licensee of the licensor under such AskAt Third Party Agreement, and AskAt shall use its best efforts to assist Arrys in exercising such rights.

7.5 No Other Representations or Warranties. EXCEPT AS EXPRESSLY STATED IN THIS ARTICLE 7, NO REPRESENTATIONS OR WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR NON-MISAPPROPRIATION OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, IS MADE OR GIVEN BY OR ON BEHALF OF A PARTY. EXCEPT AS EXPRESSLY STATED IN THIS AGREEMENT, ALL REPRESENTATIONS AND WARRANTIES, WHETHER ARISING BY OPERATION OF LAW OR OTHERWISE, ARE HEREBY EXPRESSLY EXCLUDED.

ARTICLE 8

INDEMNIFICATION

8.1 Indemnification by AskAt. Subject to the remainder of this Article 8, AskAt shall defend, indemnify, and hold Arrys, its Affiliates, subcontractors and Arrys Sublicensees, and each of their respective officers, directors, employees, and agents (the "**Arrys Indemnitees**") harmless from and against any and all liabilities, losses, costs, damages, fees, expenses or other amounts payable to a Third Party claimant, as well as any reasonable attorneys' fees and costs of litigation incurred by such Arrys Indemnitees, all to the extent resulting from any claims, suits, proceedings or causes of action brought by or on behalf of such Third Party against such Arrys Indemnitee that arise from or are based on: (a) the Exploitation of products containing AAT-007 or AAT-008 by AskAt or any of its Affiliates, licensees or sublicensees (other than pursuant to the rights granted to Arrys or its Affiliates hereunder), (b) a material breach of any of AskAt's representations, warranties or obligations under this Agreement; (c) a breach of any of the AskAt Third Party Agreements by AskAt or any of its Affiliates; (d) the willful misconduct or grossly negligent acts of AskAt or its Affiliates; or (e) violation of Applicable Law by any AskAt Indemnitees; excluding, in each case ((a), (b), (c), (d) or (e)), any damages or other amounts for which Arrys has an obligation to indemnify any AskAt Indemnitee pursuant to Section 8.2.

8.2 Indemnification by Arrys. Subject to the remainder of this Article 8, Arrys shall defend, indemnify, and hold AskAt, its Affiliates, subcontractors, and licensees, and each of their respective officers, directors, employees, and agents (the "**AskAt Indemnitees**") harmless from and against any and all liabilities, losses, costs, damages, fees, expenses or other amounts payable to a Third Party claimant, as well as any reasonable attorneys' fees and costs of litigation incurred by such AskAt Indemnitees, all to the extent resulting from any claims, suits, proceedings or causes of action brought by such Third Party against such AskAt Indemnitee that arise from or are based on: (a) the Exploitation of Licensed Compounds or Licensed Products by Arrys or its Affiliates, including product liability claims arising out of such Exploitation; (b) a material breach of any of Arrys's representations, warranties or obligations under this Agreement; (c) the willful misconduct or grossly negligent acts of Arrys or its Affiliates or Arrys's Sublicensees; (d) violation of Applicable Law by any Arrys Indemnitees; or (e) infringement of a Third Party's intellectual property rights arising out of use by Arrys or any of its Affiliates of a Arrys trademark; excluding, in each case ((a), (b), (c), (d) or (e)), any damages or other amounts for which AskAt has an obligation to indemnify any Arrys Indemnitee pursuant to Section 8.1.

8.3 Indemnification Procedures. The Party claiming indemnity under this Article 8 (the "**Indemnified Party**") shall give written notice to the Party from whom indemnity is being sought (the "**Indemnifying Party**") promptly after learning of the claim, suit, proceeding or cause of action for which indemnity is being sought ("**Claim**"). The Indemnifying Party's obligation to defend, indemnify, and hold harmless pursuant to Section 8.1 or Section 8.2, as applicable, shall be reduced to the extent the Indemnified Party's delay in providing notification pursuant to the previous sentence results in material prejudice to the Indemnifying Party; *provided*, *however*, that the failure by an Indemnified Party to give such notice or otherwise meet its obligations under this Section 8.3 shall not relieve the Indemnifying Party of its indemnification obligation under this Agreement. At its option, the Indemnifying Party may assume the defense and have exclusive control, at its own expense, of any Claim for which indemnity is being sought by giving written notice to the Indemnified Party within [***] after receipt of the notice of the Claim, *provided that* (a) it agrees to indemnify the Indemnified Party from and against all losses the Indemnified Party may suffer arising out of the Claim; (b) the Claim involves only money damages and does not seek an injunction or other equitable relief against the Indemnified Party; (c) the Claim does not relate to any criminal or regulatory enforcement proceeding; and (d) the Indemnifying Party conducts the defense of the Claim diligently. The Indemnified Party shall provide the Indemnifying Party with reasonable assistance, at the Indemnifying Party's expense, in connection with the defense. The Indemnified Party may participate in and monitor such defense with counsel of its own choosing at its sole expense; *provided*, *however*, the Indemnifying Party shall have the right to assume and conduct the defense of the Claim with counsel of its choice. The Indemnifying Party shall not settle any Claim that adversely affects the Indemnified Party's rights without the prior written consent of the Indemnified Party, not to be unreasonably withheld, conditioned or delayed, unless the settlement involves only the payment of money. The Indemnified Party shall not settle any such Claim that adversely affects the Indemnifying Party's rights without the prior written consent of the Indemnifying Party, which consent shall not be unreasonably withheld, conditioned or delayed. If the Indemnifying Party does not assume and conduct the defense of the Claim as provided above, (i) the Indemnified Party may defend against, and consent to the entry of any judgment or enter into any settlement with respect to the Claim in any manner the Indemnified Party may deem reasonably appropriate (and the Indemnified Party need not consult with, or obtain any consent from, the Indemnifying Party in connection therewith), and (ii) the Indemnified Party reserves any right it may have under this Article 8 to obtain indemnification from the Indemnified Party.

8.4 Limitation of Liability. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES OF ANY KIND ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT OR ANY CLAIMS ARISING HEREUNDER, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY (WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE), REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 8.4 IS INTENDED TO OR SHALL LIMIT OR RESTRICT (A) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY UNDER SECTION 8.1 OR SECTION 8.2, (B) DAMAGES AVAILABLE IN THE CASE OF A PARTY'S FRAUD, GROSS NEGLIGENCE OR INTENTIONAL MISCONDUCT, OR (C) DAMAGES AVAILABLE TO A PARTY FOR A BREACH BY THE OTHER PARTY OF ARTICLE 4 OR THE CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 9.

8.5 Insurance. During the Term, Arrys shall, at its individual sole expense, obtain and maintain commercially reasonable insurance or maintain a commercially reasonable program of self-insurance. Each Party shall also maintain any mandatory insurance, including but not limited to workers compensation coverage, in accordance with all Applicable Laws and regulations. Each Party shall provide to the other Party, on request, certificates of insurance evidencing the minimum required insurance, including notice of cancellation to be provided in accordance with the terms of the insurance policies.

ARTICLE 9

CONFIDENTIALITY

9.1 Confidentiality; Exceptions. Except to the extent expressly authorized by this Agreement or otherwise agreed in writing, the Parties agree that the receiving Party shall keep confidential and shall not publish or otherwise disclose or use for any purpose other than as provided for in this Agreement any information and materials provided to it by or on behalf of the other Party or its Affiliates or generated pursuant to this Agreement (collectively, "**Confidential Information**"). For clarity, Confidential Information of a Party or its Affiliates shall include, without limitation, all information and materials disclosed by such Party or its Affiliates or their respective designees that (a) is marked as "Confidential," "Proprietary" or with similar designation at the time of disclosure or (b) by its nature can reasonably be expected to be considered Confidential Information by the recipient. Information disclosed orally shall not be required to be identified as such to be considered Confidential Information. The terms of this Agreement shall be deemed to be the Confidential Information of both Parties. Notwithstanding the foregoing, Confidential Information shall not include any information to the extent that it can be established by written documentation by the receiving Party that such information:

(a) was already known to the receiving Party, other than under an obligation of confidentiality (except to the extent such obligation has expired or an exception is applicable under the relevant agreement pursuant to which such obligation was established), at the time of disclosure;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving Party in breach of this Agreement;

(d) was independently developed by the receiving Party as demonstrated by written documentation prepared contemporaneously with such independent development; or

(e) was disclosed to the receiving Party, other than under an obligation of confidentiality (except to the extent such obligation has expired or an exception is applicable under the relevant agreement pursuant to which such obligation was established), by a Third Party who had no obligation to the disclosing Party not to disclose such information to others.

9.2 Authorized Disclosure. Except as expressly provided otherwise in this Agreement, each Party may use and disclose Confidential Information of the other Party solely as follows:

(a) under appropriate confidentiality provisions substantially equivalent to those in this Agreement:

(i) in connection with the performance of its obligations or as reasonably necessary or useful in the exercise of its rights under this Agreement, including the right to grant licenses or sublicenses as permitted hereunder;

(ii) in the case of Arrys as the receiving Party, to actual or potential (sub)licensees, acquirers or assignees, collaborators, investment bankers, investors or lenders, in each case, on a need to know basis;

(iii) in the case of AskAt as the receiving Party, to actual or potential acquirers or assignees, collaborators, investment bankers, investors or lenders, in each case, on a need to know basis; and

(iv) in the case of AskAt as the receiving Party, to actual or potential licensees (including an actual or potential licensee who is a Arrys Sublicensee coming into a direct license as provided for in this Agreement) solely as is reasonably necessary for each such disclosee to conduct technical or legal due diligence in connection with the proposed transaction with AskAt; provided that in no event shall such disclosure include any Confidential Information of Arrys other than the scope of Licensed Technology, Licensed Compounds, Licensed Products, in the Field and in the Territory,

(b) to the extent such disclosure is to a Governmental Authority as reasonably necessary in filing or prosecuting Patent, copyright and trademark applications, prosecuting or defending litigation, complying with applicable governmental regulations with respect to performance under this Agreement, obtaining Regulatory Approval or fulfilling post-approval regulatory obligations for the Licensed Compounds or Licensed Products, or otherwise required by Applicable Law; *provided, however*, that if a Party is required by Applicable Law to make any such disclosure of the other Party's Confidential Information it shall, except where impracticable for necessary disclosures, give reasonable advance notice to the other Party of such disclosure requirement and, in each of the foregoing, shall use its reasonable efforts to secure confidential treatment of such Confidential Information required to be disclosed and shall only disclosed that Confidential Information that is required to be disclosed;

(c) to advisors (including lawyers and accountants) on a need to know basis, in each case under appropriate confidentiality provisions or professional standards of confidentiality substantially equivalent to those of this Agreement; or

(d) to the extent mutually agreed to by the Parties.

In the event that a receiving Party discloses Confidential Information of the other Party pursuant to the foregoing provisions of this Section 9.2, the receiving Party shall be primarily liable to the other Party for any act or omission of a disclosee to whom the receiving Party provides the disclosing Party's Confidential Information to the same extent as if such act or omission of a disclose were an act or omission of the receiving Party. Notwithstanding the foregoing, the Parties shall agree upon a joint press release to announce this Agreement in a form to be mutually agreed by the Parties; thereafter, each Party may each disclose to Third Parties the information contained in such press release without the need for further approval by the other. Notwithstanding the foregoing, if a Party is required by Applicable Law to make a disclosure of the terms of this Agreement in a filing with or other submission to the SEC or foreign equivalent, any stock exchange or market, including publicly disclosing or filing this Agreement as a "material agreement" in accordance with Applicable Laws or applicable stock exchange regulations, and (A) such Party has provided copies of the disclosure to the other Party as far in advance of such filing or other disclosure as is reasonably practicable under the circumstances, (B) such Party has promptly notified the other Party in writing of such requirement and any respective timing constraints, and (C) such Party has given the other Party a reasonable time under the circumstances from the date of notice by such Party of the required disclosure to comment upon, request confidential treatment or approve such disclosure, then such Party shall have the right to make such public disclosure at the time and in the manner reasonably determined by its counsel to be required by Applicable Law. Notwithstanding anything to the contrary herein, it is hereby understood and agreed that if a Party seeking to make a disclosure to the SEC as set forth in this Section 9.2, and the other Party provides comments within the respective time periods or constraints specified herein or within the respective notice, the Party seeking to make such disclosure or its counsel, as the case may be, shall in good faith (1) consider incorporating such comments and (2) use reasonable efforts to incorporate such comments, limit disclosure or obtain confidential treatment to the extent reasonably requested by the other Party. Each Party shall have the right to issue additional press releases or to make public disclosures with the prior written agreement of the other Party.

9.3 Attorney-Client Privilege. Neither Party is waiving, nor shall be deemed to have waived or diminished, any of its attorney work product protections, attorney-client privileges or similar protections and privileges as a result of disclosing information pursuant to this Agreement, or any of its Confidential Information (including Confidential Information related to pending or threatened litigation) to the receiving Party, regardless of whether the disclosing Party has asserted, or is or may be entitled to assert, such privileges and protections. The Parties: (a) share a common legal and commercial interest in such disclosure that is subject to such privileges and protections; (b) are or may become joint defendants in proceedings to which the information covered by such protections and privileges relates; (c) intend that such privileges and protections remain intact should either Party become subject to any actual or threatened proceeding to which the disclosing Party's Confidential Information covered by such protections and privileges relates; and (d) intend that after the Effective Date both the receiving Party and the disclosing Party shall have the right to assert such protections and privileges.

ARTICLE 10

TERM AND TERMINATION

10.1 Term. This Agreement shall commence on the Effective Date and, unless earlier terminated pursuant to this Article 10, shall expire on a country-by-country basis and Licensed Product-by-Licensed Product basis on the expiration date in such country of Royalty Term with respect to such Licensed Product in such country (the "**Term**"). Following the end of the Term for any such Licensed Product in such country by expiration (but not termination), the license granted to Arrys under Section 4.1 shall become non-exclusive, perpetual, irrevocable, fully paid-up and royalty-free.

10.2 Termination by Arrys.

(a) Arrys shall have the right for any or no reason to terminate this Agreement upon [***] prior written notice to AskAt.

(b) Arrys shall have the right to terminate Section 6.1(b) upon written notice to AskAt if AskAt or any of its Affiliates materially breaches any of its obligations under this Agreement and, after receiving written notice from Arrys identifying such material breach by AskAt in reasonable detail, fails to cure such material breach within [***] from the date of such notice; provided that such [***] period shall be extended to [***] if AskAt has commenced and is continuing good faith efforts to cure such breach but was not able to cure such breach within the initial [***] period.

10.3 Termination for Breach or Insolvency.

(a) Termination by AskAt. AskAt shall have the right to terminate this Agreement, either in whole or in relation to a particular Licensed Technology, with immediate effect by written notice to Arrys if Arrys or any of its Affiliates materially breaches any of its obligations under this Agreement and, after receiving written notice from AskAt identifying such material breach by Arrys in reasonable detail, fails to cure such material breach within [***] from the date of such notice; provided that such [***] period except for breaches of payment obligations shall be extended to [***] if Arrys has commenced and is continuing good faith efforts to cure such breach but was no able to cure such breach within the initial [***] period. For clarity, in no event shall such [***] period with respect to breaches of payment obligations be extended.

(b) Insolvency. If, at any time during the Term (i) a case is commenced by or against either Party under Title 11, United States Code, as amended, or analogous provisions of Applicable Law outside the United States (the "**Bankruptcy Code**") and, in the event of an involuntary case under the Bankruptcy Code, such case is not dismissed within [***] after the commencement thereof, (ii) either Party files for or is subject to the institution of bankruptcy, liquidation or receivership proceedings (other than a case under the Bankruptcy Code), (iii) either Party assigns all or a substantial portion of its assets for the benefit of creditors, (iv) a receiver or custodian is appointed for either Party's business, or (v) a substantial portion of either Party's business is subject to attachment or similar process; then, in any such case ((i), (ii), (iii), (iv) or (v)), the other Party may terminate this Agreement upon written notice to the extent permitted under Applicable Law.

10.4 Disputed Termination Right. If the non-terminating Party reasonably disputes in good faith the right of the other Party to terminate this Agreement for any reason other than Arrys's right to terminate for convenience pursuant to Section 10.2, and such non-terminating Party provides the terminating Party written notice of such dispute with reasonable justification for such dispute within [***] after the terminating Party's notice, as applicable, then the terminating Party shall not have the right to terminate this Agreement unless and until a court, in accordance with Article 11, has determined that the terminating Party has the right to terminate this Agreement in accordance with the terms and conditions set forth herein. It is understood and agreed that during the pendency of such dispute, all of the terms and conditions of this Agreement shall remain in effect.

10.5 Effects of Termination.

(a) Upon termination of this Agreement by Arrys under Section 10.2(a), by AskAt under Section 10.3(a), or by either Party pursuant to Section 10.3(b), the following shall apply (in addition to any other rights and obligations under this Article 10):

(i) Licenses and Exclusivity. All licenses granted in Article 4 shall terminate and the exclusivity obligations set forth in Section 4.4 shall terminate;

(ii) Arrys Sublicenses. Any existing agreements that contain a Arrys Sublicense shall terminate and Arrys shall terminate all sublicenses and cause all Affiliates and Arrys's Sublicensees to cease to Exploit all Licensed Compound and Licensed Product, provided however that, if a Arrys Sublicensee was not then in breach of its Arrys Sublicense agreement with Arrys and if the actions or failure to act of such Arrys Sublicensee did not give rise to the basis for termination by AskAt, upon written request of such Arrys Sublicensee, such Arrys Sublicensee and AskAt shall enter into a direct license agreement under the Licensed Technology within the scope of the relevant Arrys Sublicense, on the same terms as set forth in this Agreement and AskAt agrees to negotiate in good faith the final form of such license agreement;

(iii) Confidential Information and Materials. Each Party shall, within [***] of the termination date, return to the other Party (or as directed by such other Party destroy and certify to such other Party in writing as to such destruction) all of such other Party's Confidential Information provided by or on behalf of such other Party hereunder that is in the possession or control of such Party (or any of its Affiliates, sublicensees or subcontractors), except that such Party shall have the right to retain [***] copy of Confidential Information of such other Party strictly for legal purposes; and

(iv) Arrys shall, and shall cause each of its Affiliates and each Arrys Sublicensee to, provide to AskAt, without any charge, a copy of or reasonable access to any Know-How or Inventions Controlled by Arrys, or any of its Affiliates or any Arrys Sublicensee that were developed, created, conceived or reduced to practice by or on behalf of such Person in the course of the Development and Commercialization of Licensed Compound and Licensed Product ("**Related Know-How and Inventions**"). Arrys shall grant, and cause of its Affiliates and each Arrys Sublicensee that Controls any such Know-How or Inventions to grant to AskAt a non-exclusive, transferable, sublicenseable, worldwide, royalty free, fully paid up, perpetual and irrevocable license to Exploit the Related Know-How and Inventions Controlled by such Person without any restriction to the extent Applicable Law permits. Notwithstanding the foregoing, (A) in the event that Arrys, any of its Affiliates or any Sublicensee experiences a Change of Control on or after the Effective Date and prior to the termination of this Agreement, the Related Know-How and Inventions to be licensed by such Person pursuant to this

Section 10.5(a)(iv) shall be limited to the Related Know-How and Inventions Controlled by such Person prior to such Change of Control and (B) this Section 10.5(a)(iv) shall not apply in the event of a termination by Arrys pursuant to Section 10.3(b).

(b) Upon termination of Section 6.1(b) by Arrys pursuant to Section 10.2(b), the license grant set forth in Section 6.1(b) shall terminate.

10.6 Rights in Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by AskAt are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties agree that Arrys, as licensee of certain rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the U.S. Bankruptcy Code. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against AskAt under the U.S. Bankruptcy Code, Arrys shall be entitled to a complete duplicate of (or complete access to, as appropriate) any intellectual property licensed to Arrys and all embodiments of such intellectual property, which, if not already in Arrys's possession, shall be promptly delivered to it (a) upon any such commencement of a bankruptcy proceeding upon Arrys's written request therefor, unless AskAt elects to continue to perform all of its obligations under this Agreement or (b) if not delivered under clause (a), following the rejection of this Agreement by AskAt upon written request therefor by Arrys.

10.7 Survival. Notwithstanding anything to the contrary, the following provisions shall survive and apply after expiration or termination of this Agreement in its entirety: Sections 3.6(c) and (d), 6.1, 6.2(b), 6.3 (but solely with respect to Joint Patents), 6.4 (but solely with respect to Joint Patents), 7.3(h), 8.1, 8.2, 8.3, 8.4, 10.5 and 10.7 and Article 1, Article 5, Article 9, Article 11 and Article 12. In addition, the other applicable provisions of Article 5 shall survive such expiration or termination of this Agreement in its entirety to the extent required to make final reimbursements, reconciliations or other payments incurred or accrued prior to the date of termination or expiration. All provisions not surviving in accordance with the foregoing shall terminate upon expiration or termination of this Agreement and be of no further force and effect. Termination or expiration of this Agreement for any reason shall not constitute a waiver or release of, or otherwise be deemed to prejudice or adversely affect, any rights, remedies or claims, whether for damages or otherwise, that a Party may have hereunder or that may arise out of or in connection with such termination or expiration.

ARTICLE 11

DISPUTE RESOLUTION

11.1 Disputes. Except as otherwise expressly set forth in this Agreement, disputes of any nature arising under, relating to, or in connection with this Agreement ("**Disputes**") shall be resolved pursuant to this Article 11.

11.2 Dispute Escalation. In the event of a Dispute between the Parties, the Parties shall first attempt to resolve such Dispute by negotiation and consultation between themselves. In the event that such Dispute is not resolved on an informal basis within [***] from receipt of the written notice of a Dispute, either party may, by written notice to the other, have such Dispute referred to the Chief Executive Officer of each Party (or the designee of the Chief Executive

Officer, which designee is required to have decision-making authority on behalf of such Party), who shall attempt to resolve such Dispute by negotiation and consultation for a [***] period following receipt of such written notice.

11.3 Arbitration. In the event the Parties have not resolved such Dispute within [***] of receipt of the written notice referring such Dispute pursuant to Section 11.2, either Party may at any time after such [***] period submit such Dispute to be finally settled by arbitration administered in accordance with the procedural rules of the American Arbitration Association (the "**AAA**") in effect at the time of submission, as modified by this Section 11.3. The arbitration shall be governed by the Laws of the State of New York. The arbitration shall be heard and determined by [***] arbitrators who are retired judges or attorneys with at least [***] of relevant experience in the pharmaceutical and biotechnology industry, each of whom shall be impartial and independent. Each Party shall appoint [***] arbitrator and the [***] arbitrator shall be selected by the [***] Party-appointed arbitrators, or, failing agreement within [***] following appointment of the second arbitrator, by the AAA. Such arbitration shall take place in New York, New York. The arbitration award so given shall, absent manifest error, be a final and binding determination of the Dispute, shall be fully enforceable in any court of competent jurisdiction, and shall not include any damages expressly prohibited by Section 8.4. Fees, costs and expenses of arbitration are to be divided by the Parties in the following manner: each Party shall pay for the arbitrator it chooses and the Parties shall share payment for the third arbitrator. Except in a proceeding to enforce the results of the arbitration or as otherwise required by law, neither Party nor any arbitrator may disclose the existence, content or results of any arbitration hereunder without the prior written consent of both Parties.

11.4 Injunctive Relief. Notwithstanding the dispute resolution procedures set forth in this Article 11, in the event of an actual or threatened breach of this Agreement, the aggrieved Party may seek provisional equitable relief (including restraining orders, specific performance or other injunctive relief), without first submitting to any dispute resolution procedures hereunder.

11.5 Tolling.

(a) The Parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches), as well as all time periods in which a party must exercise rights or perform obligations hereunder, shall be tolled once the dispute resolution procedures set forth in this Article 11 have been initiated and for so long as they are pending, and the Parties shall cooperate in taking all actions reasonably necessary to achieve such a result.

(b) In addition, during the pendency of any Dispute under this Agreement initiated before the end of any applicable cure period:

(i) this Agreement shall remain in full force and effect,

(ii) the provisions of this Agreement relating to termination for material breach with respect to such Dispute shall not be effective,

(iii) the time period for cure under Section 10.3(a) as to any termination notice given prior to the initiation of arbitration shall be tolled,

(iv) any time periods to exercise rights or perform obligations shall be tolled; and

(v) neither Party shall issue a notice of termination pursuant to this Agreement based on the subject matter of the arbitration, until the arbitral tribunal has confirmed the material breach and the existence of the facts claimed by a Party to be the basis for the asserted material breach; *provided, that* if such breach can be cured by the taking of specific remedial actions, the defaulting Party shall have a reasonable period of time to undertake and complete such remedial actions before any such notice of termination can be issued. Further, with respect to any time periods that have run during the pendency of the Dispute, the applicable Party shall have a reasonable period of time to exercise any rights or perform any obligations affected by the running of such time periods.

ARTICLE 12

MISCELLANEOUS

12.1 Entire Agreement; Amendment. This Agreement, including the Exhibits and Schedules hereto, set forth the complete, final and exclusive agreement and all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings between the Parties existing as of the Effective Date with respect to the subject matter hereof. There are no covenants, promises, agreements, warranties, representations, conditions or understandings, either oral or written, between the Parties other than as are set forth herein and therein. No subsequent alteration, amendment, change or addition to this Agreement shall be binding upon the Parties unless reduced to writing and signed by an authorized officer of each Party.

12.2 Force Majeure. Both Parties shall be excused from the performance of their obligations under this Agreement to the extent that such performance is prevented or delayed by force majeure and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse shall be continued so long as the condition constituting force majeure continues and the nonperforming Party takes reasonable efforts to remove the condition. For purposes of this Agreement, force majeure shall mean conditions beyond the control of the Parties, including an act of God, war, civil commotion, terrorist act, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe, and failure of plant or machinery (*provided that* such failure could not have been prevented by the exercise of skill, diligence, and prudence that would be reasonably and ordinarily expected from a skilled and experienced person engaged in the same type of undertaking under the same or similar circumstances).

12.3 Notices and Reports. Any notice and report required or permitted to be given under this Agreement shall be in writing, shall specifically refer to this Agreement, and shall be addressed to the appropriate Party at the address specified below or such other address as may be specified by such Party in writing in accordance with this Section 12.3, and shall be deemed to have been given for all purposes (a) when received, if hand-delivered or sent by a reputable international expedited delivery service, or (b) [***] (such days to be determined with respect to Business Days of the addressee) after mailing, if mailed by first class certified or registered mail, postage prepaid, return receipt requested. This Section 12.3 is not intended to govern the day-to-day business communications necessary between the Parties in performing their obligations under the terms of this Agreement.

If to AskAt:	AskAt Inc. Att: [***] [***] [***], Nagoya, 466-0841 Japan
If to Arrys:	c/o OrbiMed Advisors, LLC 601 Lexington Avenue New York, NY 10022 USA Attn: [***]
With a copy to (which shall not constitute notice):	Goodwin Procter LLP 100 Northern Avenue Boston, MA 02109 USA Attn: [***]

12.4 No Strict Construction; Headings. This Agreement has been prepared jointly and shall not be strictly construed against either Party. Ambiguities, if any, in this Agreement shall not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision. The headings of each Article and Section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular Article or Section.

12.5 Interpretation. Whenever any provision of this Agreement uses the term “including” (or “includes”), such term shall be deemed to mean “including without limitation” (or “includes without limitations”). “Herein,” “hereby,” “hereunder,” “hereof” and other equivalent words refer to this Agreement as an entirety and not solely to the particular portion of this Agreement in which any such word is used. The term “will” has the same meaning as the term “shall”. The term “or” means “and/or” hereunder. All definitions set forth herein shall be deemed applicable whether the words defined are used herein in the singular or the plural. Unless otherwise provided, all references to Sections and Exhibits in this Agreement are to Sections and Exhibits of this Agreement. References to any Sections include Sections and subsections that are part of the related Section (e.g., a section numbered “Section 3.2” would be part of “Section 3”, and references to “Section 3.2” would also refer to material contained in the subsection described as “Section 3.2(a)”). Unless otherwise stated, dollar amounts set forth in this Agreement are U.S. dollars.

12.6 Assignment. Neither Party may assign or transfer (whether by operation of Applicable Law or otherwise) this Agreement or any rights or obligations hereunder without the prior written consent of the other, except that following prior written notice to the other Party, (a) Arrys may make such an assignment without AskAt’s consent to an Affiliate or to a successor to all or substantially all of the business or assets to which this Agreement relates, whether in a merger, sale of stock, sale of assets, reorganization or other transaction and (b) AskAt may make such an assignment without Arrys’s consent to a successor to all or substantially all of the business or assets to which this Agreement relates, including the assets related to the Licensed Compound or Licensed Products, whether in a merger, sale of stock, sale of assets, reorganization or other transaction. Any permitted successor or assignee of rights or obligations hereunder shall expressly assume performance of such rights or obligations (and in any event, any Party assigning this Agreement to an Affiliate shall remain bound by the terms and

conditions hereof and any Party assigning this Agreement to a Third Party other than Affiliate shall remain bound by the terms and conditions of Article 9). Any permitted assignment shall be binding on and inure to the benefit of the successors of the assigning Party. Any assignment or attempted assignment by either Party in violation of the terms of this Section 12.6 shall be null, void and of no legal effect.

12.7 Performance by Affiliates. Each Party may discharge any obligations and exercise any right hereunder through any of its Affiliates. Each Party hereby guarantees the performance by its Affiliates of such Party's obligations under this Agreement, and shall cause its Affiliates to comply with the provisions of this Agreement in connection with such performance. Any breach by a Party's Affiliate of any of such Party's obligations under this Agreement shall be deemed a breach by such Party, and the other Party may proceed directly against such Party without any obligation to first proceed against such Party's Affiliate.

12.8 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

12.9 Severability. If any one or more of the provisions of this Agreement is held to be invalid or unenforceable by an arbitrator or by any court of competent jurisdiction from which no appeal can be or is taken, the provision shall be considered severed from this Agreement and shall not serve to invalidate any remaining provisions hereof. The Parties shall make a good faith effort to replace any invalid or unenforceable provision with a valid and enforceable one such that the objectives contemplated by the Parties when entering into this Agreement may be realized.

12.10 No Waiver. Any delay in enforcing a Party's rights under this Agreement or any waiver as to a particular default or other matter shall not constitute a waiver of such Party's rights to the future enforcement of its rights under this Agreement, except with respect to an express written and signed waiver relating to a particular matter for a particular period of time.

12.11 Independent Contractors. Each Party shall act solely as an independent contractor, and nothing in this Agreement shall be construed to give either Party the power or authority to act for, bind, or commit the other Party in any way. Nothing herein shall be construed to create the relationship of partners, principal and agent, or joint-venture partners between the Parties.

12.12 Counterparts. This Agreement may be executed in one (1) or more counterparts, by facsimile, pdf or other electronic format, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

12.13 Choice of Law. This Agreement shall be governed by, and enforced and construed in accordance with, the laws of the State of New York, without regard to its conflicts of law provisions.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives as of the Effective Date.

ASKAT INC.

By: /s/ Akihiro Furuta
Name: Akihiro Furuta
Title: President

ARRYS THERAPEUTICS, INC.

By: /s/ Iain Dukes
Name: Iain Dukes
Title: President and Chief Executive Officer

EXHIBIT A

LICENSED PATENTS

COMPOSITION PATENTS & TREATMENT PATENTS

Patent	International publication No.	International filing date (Expiration date w/o PTE*)	Country
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]

[***]

COMPOSITION PATENTS for AAT-007

[***]

Country	Application No.	Patent No.	IPM Status
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
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[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]

COMPOSITION PATENTS for AAT-007 Polymorph

[***]

Country	Application No.	Patent No.	IPM Status
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
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[***]	[***]	[***]	[***]
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[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]

EXHIBIT B

DEVELOPMENT PLAN

[***]

SCHEDULE 1.97

CERTAIN REGULATORY MATERIALS

Country	IND No.	Drug	Sponsor	Indication	Phase	Status
[***]	[***]	[***]	[***]	[***]	[***]	[***]

SCHEDULE 7.2(A)

IP CONFLICTS

None.

SCHEDULE 7.2(e)(i)

LIST OF LICENSE AGREEMENTS

Title	Compound	Company	Date	Description
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]				

LIST OF ACTIVE COLLABORATION AGREEMENTS

Agreement	Name	Affiliation	Study	Compound	Date
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]					

SCHEDULE 7.2(e)(ii)

Title	Compound	Parties	Date	Description
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]				

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT NO. 1 TO LICENSE AGREEMENT

THIS AMENDMENT NO. 1 TO LICENSE AGREEMENT (this "Amendment No. 1") is entered into as of December 18, 2018 (the "Amendment No. 1 Effective Date"), by and between Arrys Therapeutics, Inc., ("Arrys") and AskAt, Inc. ("AskAt"). Capitalized terms used herein but not defined herein shall have the same meaning as set forth in the Agreement (as defined below).

WHEREAS, Arrys and AskAt entered into that certain License Agreement between them, dated as of December 14, 2017 (the "Agreement"); and

WHEREAS, pursuant to Section 12.1 of the Agreement, the Parties wish to amend the Agreement as set forth herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties do hereby amend the Agreement as follows:

1. **Amendment.** Exhibit B to the Agreement is hereby amended by replacing the phrase "[***]" with "[***]".

2. **Controlling Nature; Modification; No Other Changes**. Upon the execution of this Amendment No. 1 by an authorized representative of each Party, the Agreement shall be amended in accordance herewith, and this Amendment No. 1 shall form a part of the Agreement for all purposes. Except as expressly amended by this Amendment No. 1, all terms set forth in the Agreement shall remain the same and shall remain in full force and effect.

3. **Choice of Law**. This Amendment No. 1 shall be governed by, and enforced and construed in accordance with, the laws of the State of New York, without regard to its conflicts of law provisions.

4. **Counterparts**. This Amendment No. 1 may be executed in one (1) or more counterparts, by facsimile, pdf or other electronic format, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, each Party has caused this Amendment No. 1 to be executed by its duly authorized representative as of the Amendment No. 1 Effective Date.

ARRYS THERAPEUTICS, INC.

By: /s/ Iain Dukes
Name: Iain Dukes
Title: President and Chief Executive Office

ASKAT, INC.

By: /s/ Akihiro Furuta
Name: Akihiro Furuta
Title: President

Exhibit 10.8

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

EXECUTION VERSION
CONFIDENTIAL

MASTER COLLABORATION AGREEMENT

by and between

CELGENE CORPORATION

and

KYN THERAPEUTICS INC.

Dated as of January 11, 2019

TABLE OF CONTENTS

LIST OF SCHEDULES

LIST OF EXHIBITS

MASTER COLLABORATION AGREEMENT

This **MASTER COLLABORATION AGREEMENT** (this "**Agreement**") is entered into and made effective as of January 11, 2019 (the "**Collaboration Effective Date**") by and between Celgene Corporation, a Delaware corporation ("**Celgene**"), and Kyn Therapeutics Inc., a Delaware corporation ("**Company**"). Celgene and Company are each referred to herein by name or as a "**Party**", or, collectively, as the "**Parties**".

RECITALS

WHEREAS, Celgene and Company desire to enter into an arrangement pursuant to which Company may carry out research and development activities with the goal of identifying, generating and developing Drug Candidates (as defined below) for each Collaboration Target (as defined below); and

WHEREAS, if Company identifies a Drug Candidate for a Collaboration Target, or upon payment of the Data Package Fee (as defined below) by Celgene following receipt of a Summary Drug Candidate Data Package (as defined below), (a) Celgene will have the exclusive right to enter into a Global License Agreement (as defined below) with Company with respect to compounds and products directed to the applicable Collaboration Target, and (b) if Celgene exercises such right, the Parties will enter into a Global License Agreement with respect thereto, on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements set forth below, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE 1
DEFINITIONS

Unless specifically set forth to the contrary herein, the following terms will have the respective meanings set forth below:

1.1 "**Acquiring Entity"** means, collectively, the Third Party referenced in the definition of Change of Control and such Third Party's Affiliates, other than the applicable Party in the definition of Change of Control and such Party's Affiliates, determined immediately prior to the closing of such Change of Control.

1.2 "**Affiliate**" means, with respect to a Person, any other Person which, directly or indirectly through one (1) or more intermediaries, controls, is controlled by or is under common control with such Person. For purposes of this definition, the term "control" (including, with correlative meanings, the terms "controlled by" and "under common control with") as used with respect to a Person means (a) direct or indirect ownership of more than [***] of the voting securities or other voting interest of any Person (including attribution from related parties), or (b) the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through ownership of voting securities, by contract, as a general partner, as a manager, or otherwise.

1.3 "**AHR Agonist**" means any AHR Target agonist, excluding any inverse agonist.

1.4 "**AHR Antagonist**" means any AHR Target antagonist or inverse agonist.

1.5 "**AHR Program**" means all Development and Manufacturing activities conducted by or on behalf of Company or any of its Affiliates with respect to the AHR Target, including all Collaboration Candidates Directed to the AHR Target and all Program Biological and Chemical Materials for the AHR Target. For the avoidance of doubt, the AHR Program does not include Company's AHR Agonist program.

1.6 "**Antitrust Laws**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder (the "**HSR Act**"), the Sherman Act, as amended, the Clayton Act, as amended, the Federal Trade Commission Act, as amended, and any other Laws of the United States (or a state or territory thereof) or any other Governmental Authority that are designed to prohibit, restrict or regulate actions having the purpose or effect of monopolization or restraint of trade.

1.7 "**Biomarker**" means a parameter or characteristic in a patient or Patient Sample, the measurement of which is useful (a) for purposes of selecting appropriate therapies or patient populations or monitoring therapies for such patient, or (b) for predicting the outcome of a particular treatment of such patient.

1.8 "**Business Day**" means a day on which banking institutions in Boston, Massachusetts, and New York City, New York are open for business, excluding any Saturday or Sunday.

1.9 "**Calendar Quarter**" means the period beginning on the Collaboration Effective Date and ending on the last day of the calendar quarter in which the Collaboration Effective Date falls, and thereafter each successive period of three (3) consecutive calendar months ending on the last day of March, June, September, or December, respectively; provided, that the final Calendar Quarter will end on the last day of the Collaboration Term.

1.10 "**Calendar Year**" means the period beginning on the Collaboration Effective Date and ending on December 31 of the calendar year in which the Collaboration Effective Date falls, and thereafter each successive period of twelve (12) consecutive calendar months beginning on January 1 and ending on December 31; provided, that the final Calendar Year will end on the last day of the Collaboration Term.

1.11 "**Celgene Background IP**" means all Patents and Know-How owned or otherwise Controlled (through license or otherwise, but excluding Company IP) by Celgene or any of its Affiliates; provided, that Celgene Collaboration IP shall not be considered Celgene Background IP.

1.12 "**Celgene Collaboration IP**" means (a) any Celgene Collaboration Know-How and (b) Celgene Collaboration Patents.

1.13 "**Celgene Collaboration Know-How**" means any Collaboration Know-How discovered, generated, invented, made, conceived or reduced to practice by or on behalf of Celgene or its Affiliates, but excluding any Joint Collaboration Know-How

1.14 "**Celgene Collaboration Patents**" means any and all Patents that Cover any Celgene Collaboration Know-How.

1.15 "**Celgene Compound**" means any compound or product that is either: (a) Controlled by Celgene or its Affiliates as of the Collaboration Effective Date; or (b) of which Celgene or its Affiliates obtains Control after the Collaboration Effective Date outside of the Collaboration.

1.16 "**Change of Control**" means, with respect to a Party: (a) a merger or consolidation of such Party with a Third Party that results in the voting securities of such Party outstanding immediately prior thereto, or any securities into which such voting securities have been converted or exchanged, ceasing to represent at least [***] of the combined voting power of the surviving entity or the parent of the surviving entity immediately after such merger or consolidation; (b) a transaction or series of related transactions in which a Third Party, together with its Affiliates, becomes the beneficial owner of [***] or more of the combined voting power of the outstanding securities of such Party; or (c) the sale or other transfer to a Third Party of all or substantially all of such Party's business.

1.17 "**Clinical Trial**" means any Phase 1 Clinical Trial, Phase 2 Clinical Trial, or Phase 3 Clinical Trial, any study incorporating aspects of more than one of these phases, or any human clinical trial commenced after Regulatory Approval, and such other tests and studies in human subjects that are required by Law, or otherwise recommended by the Regulatory Authorities, to obtain or maintain Regulatory Approvals for a product for [***] Indications, including tests or studies that are intended to expand the product labeling for such product with respect to such Indication.

1.18 "**Collaboration Candidate**" means, on a Collaboration Program-by-Collaboration Program basis, the Compounds Directed to the Collaboration Target under such Collaboration Program that are Controlled by Company as of the Collaboration Effective Date or that are Developed under such Collaboration Program, including, with respect to the AHR Program, all Related Compounds with respect to any such Compounds.

1.19 "**Collaboration Competing Product**" means, with respect to a Collaboration Target, any compound or product that is Directed to such Collaboration Target.

1.20 "**Collaboration IP**" means, collectively:

1.20.1 "**Collaboration Know-How**" which means any and all Know-How that is discovered, generated, invented, made, conceived or reduced to practice by or on behalf of either Party or their respective Affiliates, whether solely or jointly with the other Party or any Third Party, pursuant to the conduct of activities under the Collaboration at any time during the Collaboration Term, including the physical embodiments of any Collaboration Candidates or Collaboration Products; and

1.20.2 "**Collaboration Patents**" which means any and all Patents Controlled by Company or any of its Affiliates, or by Celgene or any of its Affiliates, that Cover any Collaboration Know-How.

1.21 "**Collaboration Product**" means, on a Collaboration Program-by-Collaboration Program basis, any product (including diagnostic product) that constitutes, incorporates, comprises or contains a Collaboration Candidate from such Collaboration Program, whether or not as the sole active ingredient, and in all forms, presentations, and formulations (including manner of delivery and dosage). For clarity, different forms, presentations or formulations (including different dosage strengths) of a given Collaboration Product that constitute, incorporate, comprise or contain the same Collaboration Candidate will be considered the same Collaboration Product for purposes of this Agreement.

1.22 "**Collaboration Program**" means each of the AHR Program and the Kynureninase Program.

1.23 "**Collaboration Target**" means each of (a) kynurenine (the "**Kynureninase Target**") or (b) the aryl hydrocarbon receptor (AHR) (the "**AHR Target**"); provided, however, that all references to AHR Target (or the general term Collaboration Target) shall be interpreted so as to limit the scope of such terms to AHR Antagonists.

1.24 "**Collaboration Term**" means the period commencing on the Collaboration Effective Date and ending upon the Expiration Date, provided, that if the Expiration Date occurs during the Review Period for one or both Collaboration Programs, the Collaboration Term shall be extended until the conclusion of the last such Review Period.

1.25 "**Commercialization**" means any and all activities directed to the marketing, detailing, promoting, advertising and seeking of pricing and reimbursement of a compound or product (if applicable), whether before or after Regulatory Approval has been obtained (including making, having made, using, importing, selling and offering for sale such compound or product), and will include post-launch marketing, promoting, advertising, detailing, marketing, research, distributing, order processing, handling returns and recalls, booking sales, customer service, administering and commercially selling such compound or product, importing, exporting or transporting such compound or product for commercial sale, and all regulatory compliance with respect to the foregoing. For clarity, "**Commercialization**" does not include any Clinical Trial commenced after Regulatory Approval, nor does "**Commercialization**" include Manufacturing. When used as a verb, "**Commercialize**" means to engage in Commercialization.

1.26 "**Company Background IP**" means all Company Background Know-How and Company Background Patents.

1.27 "**Company Background Know-How**" means any and all Know-How Controlled by Company or its Affiliates (a) as of the Collaboration Effective Date or thereafter during the Collaboration Term that is necessary or reasonably useful for the Development, Manufacture or Commercialization of any Collaboration Target, Collaboration Candidate or Collaboration Product, or (b) that is otherwise used by or on behalf of Company or any of its Affiliates in the performance of a Collaboration Program, including the Know-How that is set forth on Schedule 1.27; but excluding, in all cases, Collaboration Know-How.

1.28 "**Company Background Patents**" means any and all Patents Controlled by Company or its Affiliates as of the Collaboration Effective Date or thereafter during the Collaboration Term (a) that Cover any Collaboration Target, Collaboration Candidate or Collaboration Product or the Development, Manufacture or Commercialization thereof, or (b) any Company Background Know-How, including the Patents that are set forth on Schedule 1.28, which Schedule 1.28 shall be updated by Company from time to time during the Collaboration Term as necessary; but excluding in all cases, Collaboration Patents.

1.29 "**Company Collaboration IP**" means (a) any Company Collaboration Know-How and (b) Company Collaboration Patents.

1.30 "**Company Collaboration Know-How**" means any Collaboration Know-How discovered, generated, invented, made, conceived or reduced to practice by or on behalf of Company or its Affiliates, but excluding any Joint Collaboration Know-How.

1.31 "**Company Collaboration Patents**" means any and all Patents that claim or cover any Company Collaboration Know-How.

1.32 "**Company IP**" means the Company Background Patents, the Company Background Know-How, the Company Collaboration Patents and the Company Collaboration Know-How.

1.33 "**Compound**" means a compound (including any biologic) Controlled by Company or its Affiliates prior to, on or after the Collaboration Effective Date, and whether or not Developed in the conduct of the Collaboration, that is Directed to the AHR Target (including any Related Compound of such compound) or the Kynureninase Target; provided, that no Celgene Compound nor any AHR Agonist shall be considered to be a Compound or a Related Compound.

1.34 "**Confidential Information**" means, with respect to a Party, any and all confidential or proprietary information and materials, including Know-How, trade secrets, know-how, inventions, technical data, protocols, procedures, information related to chemical or biological compounds, testing methods, business or financial information, information related to research and development programs, including clinical trial results, product and marketing plans, and all information, reports, evaluations and copies generated or derived by a Party from any of the foregoing, in each case, that are disclosed by or on behalf of such Party to the other Party or its permitted recipients pursuant to this Agreement, regardless of whether any of the foregoing are marked "confidential" or "proprietary" or communicated to the other Party by the Disclosing Party in oral, written, visual, graphic or electronic form.

1.35 "**Control**", "**Controls**" or "**Controlled**" means, with respect to any intellectual property (including Patents and Know-How), compounds or Confidential Information, the ability of a Party (whether through ownership, license or sublicense, other than a license, sublicense or other right granted (but not assigned) pursuant to this Agreement) to grant to the other Party the licenses, sublicenses or other rights as provided herein, or to otherwise disclose such intellectual

property, compounds or Confidential Information to the other Party, without violating the terms of any then-existing agreement with any Third Party at the time such Party would be required hereunder to grant the other Party such license, sublicenses or other rights as provided herein or to otherwise disclose such intellectual property, compounds or Confidential Information to the other Party. Notwithstanding the foregoing, a Party (or Affiliate of a Party, as applicable) will not be deemed to Control any Patent, Know-How, or other intellectual property, compound or Confidential Information that is owned or in-licensed by an Acquiring Entity, except: (a) with respect to any such Patent, Know-How, or other intellectual property right arising as a result of activities of employees or consultants of the Acquiring Entity who participate in the activities under this Agreement, or have access to Confidential Information under this Agreement after a Change of Control; or (b) to the extent that any such Patent, Know-How, or other intellectual property right is included in or used in furtherance of a Party's activities under this Agreement by the Acquiring Entity after a Change of Control.

1.36 "**Cover**" means, with respect to a claim of a Patent and a compound or product, that the manufacture, use, offer for sale, sale or importation of the compound or product would infringe a claim of such Patent in the country in which such activity occurred, but for the licenses granted in this Agreement (or ownership thereof).

1.37 "**Data Lock**" means, with respect to a Clinical Trial being conducted by or on behalf of Company for a Collaboration Candidate under the Collaboration, the locking by or on behalf of Company of the database that contains the data for such Clinical Trial following completion of such Clinical Trial in order to prevent or control any further changes to such data after review, query resolution and reasonable determination by Company (in accordance with industry standards) that such database is ready for analysis.

1.38 "**Development**" means (a) research activities (including drug discovery, identification or synthesis) with respect to a compound or product, or (b) preclinical and clinical drug development activities with respect to a compound or product, including test method development and stability testing, toxicology, formulation, process development, qualification and validation, quality assurance/quality control, Clinical Trials (including Clinical Trials and other studies commenced after Regulatory Approval whether necessary, recommended or required to obtain Regulatory Approval), statistical analysis and report writing, the preparation and submission of applications for Regulatory Approvals, including INDs and MAAs, regulatory affairs with respect to the foregoing and all other activities related to obtaining or maintaining a Regulatory Approval. For clarity, "**Development**" does not include Manufacturing. When used as a verb, "**Develop**" means to engage in Development.

1.39 "**Directed**" means, with respect to a compound (including a product that constitutes, incorporates, comprises or contains such compound) and a Collaboration Target, that such compound (including a product that constitutes, incorporates, comprises or contains such compound) modulates, directly or indirectly, the activity of such Collaboration Target with pharmacologic relevance. In the case of the AHR Target, the meaning of "Directed" is limited to AHR Antagonists Directed to the AHR Target, and excludes AHR Agonists Directed to the AHR Target.

1.40 "**Dollars**" or "**$**" means the legal tender of the United States.

1.41 "**Drug Candidate**" means, with respect to a given Collaboration Program, any Collaboration Candidate Directed to the Collaboration Target under such Collaboration Program with respect to which (a) a Phase 1b Clinical Trial Opt-in Trigger has been achieved, or (b) Celgene has paid the Data Package Fee pursuant to Section 3.1.3(c) (even if a Phase 1b Clinical Trial Opt-in Trigger has not been achieved), including, with respect to the AHR Program, any Related Compounds of such Collaboration Candidate.

1.42 "**Drug Candidate Data Package**" means, with respect to a given Drug Candidate Directed to a given Collaboration Target, the following: [***].

1.43 "**Encumbered Compound**" means any Compound Controlled by Company or any of its Affiliates with respect to which Company or one of its Affiliates has granted an exclusive or nonexclusive license or other rights to a Third Party to Develop, Manufacture, or Commercialize such Compound (other than licenses or other rights granted to subcontractors in connection with their performance of research, development, manufacturing, or commercialization activities on behalf of Company).

1.44 "**EU**" means all countries that are officially recognized as member states of the European Union at any particular time.

1.45 "**Executive Officers**" means Company's Chief Executive Officer and Celgene's President, Global Research and Early Development (or such individual's designee).

1.46 "**Expiration Date**" means the date that is [***] after the Collaboration Effective Date.

1.47 "**Global License Agreement**" means a Global License Agreement substantially in the form attached hereto as Exhibit A-1, with respect to the AHR Program, or Exhibit A-2, with respect to the Kynureninase Program, as such form may be modified by Celgene, in its reasonable discretion, prior to execution, solely for tax planning purposes; provided, that such modifications do not adversely impact Company's rights or obligations (including payments to Company and the Company's tax burden) thereunder in any material respect.

1.48 "**Good Clinical Practices**" or "**GCP**" means the applicable then-current ethical and scientific quality standards for designing, conducting, overseeing, monitoring, recording, and reporting trials that involve the participation of human subjects as are required by applicable Regulatory Authorities or Law in the relevant jurisdiction, including, in the United States, Good Clinical Practices established through FDA guidances (including Guideline for Good Clinical Practice – ICH Harmonized Tripartite Guideline (ICH E6)), and, outside the United States, Guidelines for Good Clinical Practice – ICH Harmonized Tripartite Guideline (ICH E6).

1.49 "**Good Laboratory Practices**" or "**GLP**" means the applicable then-current good laboratory practice standards promulgated or endorsed by the FDA, as defined in U.S. 21 C.F.R. Part 58 (or such other comparable regulatory standards in jurisdictions outside the United States, as they may be updated from time to time), and the equivalent thereof as promulgated or endorsed by the applicable Regulatory Authorities in a foreign jurisdiction.

1.50 "**Good Manufacturing Practices**" or "**GMP**" means all applicable then-current standards relating to good manufacturing practices for fine chemicals, intermediates, bulk products, biologic components, raw materials, or finished biologic or pharmaceutical products, including (a) all applicable requirements detailed in the FDA's current Good Manufacturing Practices regulations, including U.S. 21 C.F.R. Parts 210, 211, 600, 601 and 610, as applicable, (b) all applicable requirements detailed in the EMA's "The Rules Governing Medicinal Products in the European Community, Volume IV, Good Manufacturing Practice for Medicinal Products", and (c) all Laws promulgated by any Governmental Authority having jurisdiction over the manufacture of the applicable biologic or pharmaceutical compound or product, as applicable.

1.51 "**Governmental Authority**" means any (a) federal, state, local, municipal, foreign or other government, (b) governmental or quasi-governmental authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, licensing body, officer, official, representative, organization, unit, body or entity and any court or other tribunal of competent jurisdiction (including any arbitration or alternative dispute forum)), (c) supra-national or multinational governmental organization or body, or (d) entity or body exercising, or entitled to exercise, any executive, legislative, judicial, administrative, regulatory, police, military or taxing authority or power of any nature.

1.52 "**IND**" means an investigational new drug application (including any amendment or supplement thereto) submitted to the FDA pursuant to U.S. 21 C.F.R. Part 312, including any amendments thereto, and any comparable filing(s) outside the U.S. for the investigation of any product in any other country or group of countries (such as an application for a Clinical Trial in the EU).

1.53 "**IND Acceptance**" means, with respect to an IND, the earlier of (a) receipt by Company or its Affiliate of written confirmation from a Regulatory Authority or other applicable Person that Clinical Trials may proceed under such IND, or (b) expiration of the applicable waiting period after which Clinical Trials may proceed under such IND.

1.54 "**Indication**" means a separate and distinct disease or medical condition in humans (a) that a compound or product that is in clinical studies is intended to treat in such clinical studies, or (b) for which a compound or product has received a separate and distinct marketing authorization approval with an approved label claim to treat such disease or condition, as applicable. For clarity, [***].

1.55 "**Initial Development Plan**" means a research and development plan to be adopted by the Parties based upon the recommendation of the JSC after the Collaboration Effective Date, as may be amended from time to time by the JSC, governing the activities of the Collaboration that may be conducted by or on behalf of Company and its Affiliates for a given Collaboration Program during the Collaboration Term, with the goal of Developing a Drug Candidate for such Collaboration Program (including completion of a Drug Candidate Data Package therefor). The Initial Development Plan may include specific requirements for achievement of the Phase 1b Clinical Trial Opt-in Trigger.

1.56 "**Inventions**" means all inventions (whether patentable or not) discovered, generated, invented, made, conceived or reduced to practice by or on behalf of a Party or its Affiliates, whether solely or jointly with the other Party or any Third Party, in the course of activities performed under this Agreement.

1.57 "**Joint Collaboration IP**" means, collectively:

1.57.1 "**Joint Collaboration Know-How**," which means any and all Collaboration Know-How that is discovered, generated, invented, made, conceived or reduced to practice jointly by or on behalf of both Parties or their respective Affiliates; and

1.57.2 "**Joint Collaboration Patents**," which means Patents that claim or Cover any Joint Collaboration Know-How.

1.58 "**Know-How**" means all proprietary (a) know-how, information, business objectives, techniques, ideas, technology, practices, trade secrets, inventions (whether patentable or not), methods (including methods of use or administration or dosing), discoveries, improvements, developments, knowledge, works of authorship, experience, data, contents of laboratory notebooks, results and computer records (including pharmacological, toxicological and clinical test data and results), compositions of matter, chemical structures and formulations, sequences, plans, designs, processes, protocols, formulations, formulae, techniques, research data, reports, documents, specifications, standard operating procedures, batch records, manufacturing data, analytical and quality control data, analytical methods (including applicable reference standards), assays and research tools, full batch documentation, packaging records, results or descriptions, in each case, whether patentable or not, and (b) tangible manifestations thereof, including any and all of the foregoing relating to Collaboration Program Biological and Chemical Materials; but in each case ((a) and (b)), excluding any Patents. As used in this Agreement, "clinical test data" shall include all information related to clinical or non-clinical testing, including patient report forms, investigators' reports, biostatistical, pharmaco-economic and other related analyses, regulatory filings and communications, and the like.

1.59 "**Knowledge**" means the actual knowledge of each of [***], and [***], in each case, after due inquiry.

1.60 "**Kynureninase Program**" means all Development activities conducted by or on behalf of Company or any of its Affiliates with respect to the Kynureninase Target, including all Collaboration Candidates Directed to the Kynureninase Target and all Program Biological and Chemical Materials for the Kynureninase Target.

1.61 "**Law**" or "**Laws**" means all applicable laws, statutes, rules, regulations, orders, judgments, or ordinances having the effect of law of any national, multinational, federal, state, provincial, county, city or other political subdivision, including the United States Federal Food, Drug and Cosmetic Act, as amended, GCP, GLP and GMP, anti-bribery laws, such as the United States Anti-Kickback Statute, Foreign Corrupt Practices Act and UK Bribery Act, as well as all applicable data protection and privacy laws, rules and regulations (collectively, "**Data Protection Laws**"), including the United States Department of Health and Human Services privacy rules under the Health Insurance Portability and Accountability Act ("**HIPAA**"), as

amended, and the Health Information Technology for Economic and Clinical Health Act and the EU General Data Protection Regulation 2016/679 of the European Parliament and of the Counsel of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC along with other country-level data protection laws, as may be applicable.

1.62 "**Manufacture**" means all activities related to the manufacture of a compound or product or, in either case, any raw material, component or ingredient thereof, including test method development and stability testing, formulation, process development and validation, manufacturing scale-up whether before or after Regulatory Approval, manufacture of any compound or product in bulk or finished form for Development or Commercialization (as applicable), including filling and finishing, packaging, labeling, shipping and holding, in-process and finished product testing, release of a compound or product or, in either case, any component or ingredient thereof, quality assurance and quality control activities related to manufacturing and release of a compound or product, and regulatory activities related to any of the foregoing. "**Manufacturing**" shall have the corresponding meaning.

1.63 "**Marketing Authorization Application**" or "**MAA**" means an application, including a biologics license application (BLA) or new drug application (NDA), for the authorization to market a compound or product in any country or group of countries, as defined in the Laws and filed with the Regulatory Authority of a given country or group of countries, and all additions, amendments, supplements, extensions and modifications thereto.

1.64 "**Opt-in Term**" means, with respect to a given Collaboration Program, the period commencing upon the date that Company is required to deliver the Drug Candidate Data Package with respect to a Drug Candidate for such Collaboration Program pursuant to Section 3.1.4 and ending upon the earlier of (a) the date that Celgene exercises its Opt-in with respect to such Collaboration Program, or (b) the end of the Review Period for such Collaboration Program.

1.65 "**Patents**" means (a) patents and patent applications (provisional and non-provisional) anywhere in the world, (b) all divisionals, continuations, continuations in-part thereof, or any other patent application claiming priority, or entitled to claim priority, directly or indirectly to (i) any such patents or patent applications, or (ii) any patent or patent application from which such patents or patent applications claim, or is entitled to claim, direct or indirect priority, and (c) all patents issuing on any of the foregoing anywhere in the world, together with all registrations, reissues, reexaminations, patents of addition, renewals, supplemental protection certificates, or extensions of any of the foregoing anywhere in the world.

1.66 "**Patient Sample**" means tissue, fluid, or cells collected from a patient, or components of the foregoing.

1.67 "**Person**" means any individual, partnership, joint venture, limited liability company, corporation, firm, trust, association, unincorporated organization, Governmental Authority or agency, or any other entity not specifically listed herein.

1.68 "**Phase 1 Clinical Trial**" means a human clinical trial of a compound or product that would satisfy the requirements of U.S. 21 C.F.R. Part 312.21(a), as amended, the principal purpose of which is a preliminary determination of safety, pharmacokinetics and pharmacodynamic parameters in healthy individuals or patients, or a similar clinical study prescribed by the Regulatory Authorities in a foreign country.

1.69 "**Phase 1b Clinical Trial Opt-in Trigger**" means the completion of a human Clinical Trial of a compound or product, which Clinical Trial (a) satisfies elements of a Phase 1 Clinical Trial, such as tolerability or pharmacokinetics, (b) satisfies elements, such as signs of activity, of a non-pivotal, non-randomized, not placebo controlled Phase 2 Clinical Trial, (c) is designed to support the initiation of a subsequent Phase 2 Clinical Trial or Phase 3 Clinical Trial, or the equivalent, and (d) satisfies any additional specific requirements therefor provided in the Initial Development Plan.

1.70 "**Phase 2 Clinical Trial**" means a human clinical trial of a compound or product that would satisfy the requirements of U.S. 21 C.F.R. Part 312.21(b), as amended, and is intended to explore a variety of doses, dose response, and duration of effect, and to generate evidence of clinical safety and effectiveness for a particular Indication or Indications in a target patient population, or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.71 "**Phase 3 Clinical Trial**" means a human clinical trial of a compound or product that would satisfy the requirements of U.S. 21 C.F.R. Part 312.21(c), as amended, and is intended to (a) establish that the compound or product is safe and efficacious for its intended use, (b) define contraindications, warnings, precautions and adverse reactions that are associated with the compound or product in the dosage range to be prescribed, and (c) support Regulatory Approval for such compound or product, or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.72 "**Pricing Approval**" means any approval, agreement, determination, or decision establishing prices that can be charged to consumers for a pharmaceutical product or that will be reimbursed by Governmental Authorities for a pharmaceutical product, in each case, in a country where a Governmental Authority approves or determines pricing for pharmaceutical products for reimbursement or otherwise.

1.73 "**Primary Patent Countries**" means the [***].

1.74 "**Program Biological and Chemical Materials**" means, on a Collaboration Program-by-Collaboration Program basis, any and all compositions of matter, cells, cell lines, assays, animal models, Biomarkers and any other biological or chemical materials, that are related to, or useful for, the Collaboration Target, Collaboration Candidates or Collaboration Products under such Collaboration Program (or the Development, Manufacture or Commercialization thereof), including physical embodiments of such Collaboration Program's Collaboration Candidates and Collaboration Products, in each case, Controlled by Company or its Affiliates and used in the performance of such Collaboration Program. To the extent the Program Biological and Chemical Materials are discovered, generated, invented, made, conceived or reduced to practice in the performance of a given Collaboration Program, such

Program Biological and Chemical Materials will be "Collaboration Know-How" hereunder (to the extent it satisfies the definition thereof), and to the extent the Program Biological and Chemical Materials are not discovered, generated, invented, made, conceived or reduced to practice in the performance of a given Collaboration Program, but are otherwise utilized in the performance of such Collaboration Program, such Program Biological and Chemical Materials will be "Company Background Know-How" hereunder (to the extent it satisfies the definition thereof).

1.75 "**Prosecution and Maintenance**" or "**Prosecute and Maintain**" means, with regard to a Patent, the preparation, filing, prosecution and maintenance (including payment of any patent annuity fees) of such Patent, as well as reexaminations, reissues, appeals, post grant reviews (PGRs), inter partes reviews (IPRs) and requests for patent term adjustments and patent term extensions with respect to such Patent, together with the initiation or defense of interferences, positions and other similar proceedings with respect to the particular Patent, and any appeals therefrom. For clarification, "Prosecution and Maintenance" or "Prosecute and Maintain" will not include any other enforcement actions taken with respect to a Patent.

1.76 "**Regulatory Approval**" means all approvals, licenses, permits, certifications and authorizations of the applicable Regulatory Authority necessary for the marketing and sale of a biological, pharmaceutical or diagnostic product for a particular Indication in a country in the world (including separate Pricing Approval, as necessary), and including the approvals by the applicable Regulatory Authority of any expansion or modification of the label for such Indication.

1.77 "**Regulatory Authority**" means any national or supranational Governmental Authority, including the UK Medicines and Healthcare products Regulatory Agency (and any successor entity thereto) in the UK, the U.S. Food and Drug Administration (and any successor entity thereto) (the "**FDA**") in the U.S., the European Medicines Agency (and any successor entity thereto) (the "**EMA**") in the EU and the Ministry of Health, Labour and Welfare of Japan, or the Pharmaceuticals and Medical Devices Agency of Japan (or any successor to either of them), as the case may be in Japan, or any health regulatory authority in any country or region in the Territory that is a counterpart to the foregoing agencies, in each case, that holds responsibility for development and commercialization of, and the granting of Regulatory Approval for, a biological, pharmaceutical or diagnostic product, as applicable, in such country or region.

1.78 "**Regulatory Materials**" means the regulatory registrations, listings, applications, licenses, certifications, authorizations and approvals (including approvals of INDs, MAAs, supplements and amendments, pricing and reimbursement approvals, and labeling approvals), Regulatory Approvals and other submissions made to or with any Regulatory Authority for the research, development (including the conduct of Clinical Trials), manufacture, distribution or commercialization of a biological, pharmaceutical or diagnostic product in a regulatory jurisdiction, together with all related correspondence to or from any Regulatory Authority and all documents referenced in the complete regulatory chronology for each MAA and/or Regulatory Approval, including all Drug Master Files (if any), INDs and MAAs and foreign equivalents of any of the foregoing.

1.79 "**Related Compound**" means, with respect to a given compound, any salt, free acid, free base, clathrate, solvate, hydrate, hemihydrates, anhydride, ester, chelate, conformer, congener, crystal form, crystal habit, polymorph, amorphous solid, homolog, isomer, stereoisomer, enantiomer, racemate, prodrug, isotopic or radiolabeled equivalent, metabolite, conjugate, complex or mixture, of such compound. Related Compound will not include any Celgene Compound or AHR Agonist.

1.80 "**Segregate**" means, with respect to a Collaboration Competing Product, to segregate the Development and Manufacture activities relating to such Collaboration Competing Product from the Development and Manufacture activities with respect to Collaboration Candidates and Drug Candidates Developed or Manufactured under this Agreement, including putting in place appropriate firewalls that are reasonably designed to ensure that: (a) none of the Company IP will be used in connection with the Collaboration Competing Product, (b) no Confidential Information of either Party will be used in connection with any Collaboration Competing Product (except by a Receiving Party to the extent permitted by Section 8.3), and (c) the Development and Manufacturing activities required under this Agreement will be conducted separately from any Development or Manufacturing activities related to the Collaboration Competing Product, and no personnel directly involved in performing the Development or Manufacture, as applicable, of such Collaboration Competing Product have access to non-public plans or non-public information relating to the Development or Manufacture of Collaboration Candidates or Drug Candidates; provided, that, in all cases ((a) through (c)), senior management personnel may review and evaluate plans and information regarding the Development, Manufacture, or Commercialization of such Collaboration Competing Product solely in connection with monitoring the progress of products including portfolio decision-making among product opportunities.

1.81 "**Significant Developments**" means: (a) to the extent not otherwise reported to the JSC, any material milestone events relating to a Collaboration Program, Collaboration Target, Collaboration Candidate or Collaboration Product; (b) any material Development or Manufacturing issues relating to a Collaboration Program, Collaboration Target, Collaboration Candidate or Collaboration Product; (c) the hiring or departure of any officers, directors or key employees of Company; (d) Company seeking a "freedom to operate" opinion or similar opinion of counsel relating to any Company IP or any other intellectual property that is reasonably necessary for the Development, Manufacture or Commercialization of a Collaboration Target, Collaboration Candidate or Collaboration Product; or (e) Company determining that the Development, Manufacture or Commercialization of a Collaboration Target, Collaboration Candidate or Collaboration Product may infringe the intellectual property rights of any Third Party.

1.82 "**Summary Drug Candidate Data Package**" means a reasonably detailed summary of any research and development activities conducted with respect to the lead Collaboration Candidate for the applicable Collaboration Program, including any data and results generated in connection therewith.

1.83 "**Territory**" means worldwide.

1.84 "**Third Party**" means any Person other than Company or Celgene that is not an Affiliate of Company or of Celgene.

1.85 "**Third Party Claim**" means any and all suits, claims, actions, proceedings or demands brought by a Third Party.

1.86 "**Third Party Damages**" means all losses, costs, damages, liabilities and expense asserted by Third Parties against a Party (or the Company Indemnitees or Celgene Indemnitees, as applicable) under a Third Party Claim (including reasonable attorneys' fees and other reasonable out-of-pocket costs of litigation in connection with the Third Party Claim).

1.87 "**United States**" or "**U.S.**" means the United States of America and all of its territories and possessions.

1.88 "**UT License**" means that certain Patent License Agreement (UTA Agreement No. [***]) by and between Company and the University of Texas Austin, on behalf of the Board of Regents of the University of Texas System, effective as of March 29, 2015, as amended by Amendment 1, dated May 18, 2016, as further amended by Amendment 2, dated December 15, 2016, as further amended by Amendment 3, dated October 31, 2017, as further amended by Amendment 4, dated April 25, 2018, as further amended by the email confirmation regarding an extension to Milestone #5, dated September 27, 2018, and as further amended by Amendment 5, dated January 9, 2019.

1.89 "**Violation**" means that a Party or any of its officers or directors or any other personnel (or other permitted agents of such Party performing activities hereunder, including any of such Party's Affiliates, sublicensees or Third Party contractors and their respective officers and directors) has been: (a) convicted of any of the felonies identified among the exclusion authorities listed on the U.S. Department of Health and Human Services, Office of Inspector General (OIG) website, including 42 U.S.C. 1320a-7(a) (http://oig.hhs.gov/exclusions/authorities.asp); (b) identified in the OIG List of Excluded Individuals/Entities (LEIE) database (http://exclusions.oig.hhs.gov/) or the U.S. General Services Administration's list of Parties Excluded from Federal Programs (http://www.epls.gov); or (c) listed by any U.S. federal agency as being suspended, debarred, disqualified, excluded or otherwise ineligible to participate in federal procurement or non-procurement programs, including under 21 U.S.C. 335a (http://www.fda.gov/ora/compliance_ref/debar/) (each of (a), (b) and (c) collectively, the "**Exclusions Lists**").

1.90 Additional Definitions. Each of the following terms has the meaning described in the corresponding section of this Agreement indicated below:

Definition:	**Section:**
Agreement	Preamble
AHR Target	1.23
Alliance Manager	2.2.1
Anti-Bribery Policies	3.8.6
Antitrust Filings	4.4.2
Bankruptcy Code	7.5

Definition:	Section:
Bankruptcy Event	11.4
Celgene	Preamble
Celgene Indemnitees	10.2
Chairperson	2.3.3
Collaboration	2.1
Collaboration Compound-Specific IP	8.2
Collaboration Effective Date	Preamble
Collaboration Material Transfer Agreement	3.7.1(a)
Collaboration Program Assets	4.3
Company	Preamble
Company Agreement	6.5.3
Company Indemnitees	10.1
Cure Period	11.2.1
Data Protection Laws	1.61
Disclosing Party	8.1
Disputes	12.1
DOJ	4.4.2
Electronic Delivery	13.10
EMA	1.77
Existing Confidentiality Agreement	8.10
FDA	1.77
Force Majeure	13.3
FTC	4.4.2
HIPAA	1.61
HSR Act	1.6
HSR Clearance Date	4.4.2
HSR Filing	4.4.2
Human Materials	3.8.3
Indemnitee	10.3
Indemnitor	10.3
Information Request	3.1.4
JRA Exception	7.6.1(b)
JSC	2.3.1
Kynureninase Target	1.23
License Effective Date	4.4.2
Materials	3.7.1(b)
Non-Collaboration Compound-Specific IP	8.2
Officials	3.8.5
Opt-in	4.1
Opt-in Exercise Fee	6.2
Opt-in Exercise Notice	4.2
Party or Parties	Preamble
Patent Liaison	2.2.2
Payee Party	6.5.2(b)
Payment	3.8.5

Definition:	Section:
Paying Party	6.5.2(b)
PHI	3.8.3
Providers	3.8.3
Qualified Scientist	3.2.2
Receiving Party	8.1
Review Period	3.1.4
Scientific Panel	3.2.2
SEC	8.4.1(a)
Securities Regulators	8.6
Subcommittee	2.3.2
Subcontracting Essential Provisions	3.5

ARTICLE 2
OVERVIEW; GOVERNANCE

2.1 Collaboration Overview. Pursuant to this Agreement and as further provided in Article 3, (a) Company may conduct exploratory and discovery activities, with the goal of identifying Collaboration Candidates Directed to Collaboration Targets, (b) Company may conduct Development and Manufacturing activities with respect to Collaboration Candidates, with the goal of having a Collaboration Compound achieve Drug Candidate status for each Collaboration Target (the "**Collaboration**"), and (c) if Celgene exercises its Opt-in with respect to one or both Collaboration Programs as more specifically provided in Article 4, then the Parties will enter into a Global License Agreement for each such Collaboration Program as more specifically provided in Article 4.

2.2 Governance.

2.2.1 Alliance Managers. Promptly after the Collaboration Effective Date, each Party will appoint an individual to act as alliance manager for such Party, which may be one of the representatives of such Party on the JSC (each, an "**Alliance Manager**"). The Alliance Managers will be the primary point of contact for the Parties regarding the activities contemplated by this Agreement and will facilitate all such activities hereunder. The Alliance Managers will attend all meetings of the JSC and will be responsible for assisting the JSC in performing its oversight responsibilities. The name and contact information for each Party's Alliance Manager, as well as any replacement(s) chosen by such Party, in its sole discretion, from time to time, will be promptly provided to the other Party in accordance with Section 13.2.

2.2.2 Patent Liaisons. Promptly after the Collaboration Effective Date, each Party will appoint an individual to act as a patent liaison for such Party (each, a "**Patent Liaison**"). The Patent Liaisons will be the primary point of contact for the Parties regarding intellectual property-related activities and matters contemplated by this Agreement and will facilitate all such activities and matters hereunder, including with respect to the Prosecution and Maintenance of Patents included within the Company IP. The name and contact information for each Party's Patent Liaison, as well as any replacement(s) chosen by such Party, in its sole discretion, from time to time, will be promptly provided to the other Party in accordance with Section 13.2.

2.3 Joint Steering Committee.

2.3.1 Establishment; Meetings. Within [***] after the Collaboration Effective Date, the Parties will establish a joint steering committee (the "**JSC**") as more fully described in this Section 2.3. The JSC will have review, oversight and decision-making responsibilities for those activities performed under the Collaboration Programs to the extent expressly and as more specifically provided in Section 2.3.5. Each Party agrees to keep the JSC informed of its progress and activities with respect to the Collaboration Programs under this Agreement. The first scheduled meeting of the JSC will be held no later than [***] after establishment of the JSC unless otherwise agreed by the Parties. After the first scheduled meeting of the JSC until the JSC is disbanded, the JSC will meet in person or telephonically at least once each Calendar Quarter, or more or less frequently as the Parties mutually deem appropriate, on such dates and at such places and times as provided herein or as the Parties will agree; provided, that the JSC will meet at least twice per Calendar Year in person. In any case where a matter within the JSC's authority arises, the JSC will convene a meeting and consider such matter as soon as reasonably practicable, but in no event later than [***] after the matter is first brought to the JSC's attention (or, if earlier, at the next regularly scheduled JSC meeting). The JSC will disband upon the expiration or termination of this Agreement in its entirety. Meetings that are held in person will be held at such location alternately selected by Celgene and Company. The members of the JSC also may convene or be polled or consulted from time to time by means of telecommunications, video-conferences, electronic mail or correspondence, as deemed necessary or appropriate. Each Party will bear all expenses it incurs in regard to participating in all meetings of the JSC, including all travel and living expenses.

2.3.2 Subcommittees. From time to time, the JSC may establish subcommittees to oversee particular projects or activities, as the JSC deems necessary or advisable (each, a "**Subcommittee**"); provided, that the JSC may not grant any responsibilities to a Subcommittee that are beyond the scope of the responsibilities of the JSC as set forth herein. Each Subcommittee will consist of such number of members as the JSC determines is appropriate from time to time. Such members will be individuals with expertise and responsibilities in the relevant areas. Such Subcommittees will operate under the same principles as are set forth in this Article 2 for the JSC.

2.3.3 Membership. The JSC will be composed of [***] representatives (or such other number of representatives as the Parties may mutually agree) from each of Celgene and Company (who will be employees of such Party or its Affiliates). Each representative of a Party will have sufficient seniority and expertise to participate on the JSC as appropriate in light of the functions, responsibilities and authority of the JSC. Company will have the right to designate the chairperson of the JSC (the "**Chairperson**"). Each Party may replace any or all of its representatives on the JSC at any time upon written notice to the other Party in accordance with Section 13.2. Each Party may, subject to the other Party's prior approval, invite non-member representatives of such Party and any Third Party to attend meetings of the JSC as non-voting participants; provided, that any such representative or Third Party is bound by obligations of confidentiality, non-disclosure and non-use consistent with those set forth in Article 8 prior to attending such meeting; and provided, further, that such Third Party will not have any voting or decision-making authority on the JSC. For the avoidance of doubt, each Party's representatives on the JSC will be subject to obligations of confidentiality, non-disclosure and non-use with respect to information disclosed at such meeting that are no less restrictive than those set forth in Article 8.

2.3.4 Discontinuation of the JSC or Subcommittee. The JSC's authority and the authority of any Subcommittee established by the JSC in accordance with Section 2.3.2 will continue until the first to occur of (a) the Parties mutually agreeing to disband the JSC or any such Subcommittee, as applicable, (b) on a Collaboration Program-by-Collaboration Program basis, the License Effective Date for the applicable Global License Agreement, in which case, (i) the JSC and each Subcommittee shall thereafter have no authority to oversee or review any of the matters under such Global License Agreement, and shall have no decision-making authority in connection therewith and (ii) such Collaboration Program and matters related thereto shall thereafter be governed in accordance with and pursuant to the terms of the applicable Global License Agreement and not this Agreement, and (c) on a Collaboration Program-by-Collaboration Program basis, Celgene's failure to exercise its Opt-in with respect to such Collaboration Program.

2.3.5 Responsibilities. Except as otherwise set forth in this Agreement, the JSC will perform the following general functions, subject to the final decision-making authority as set forth in Section 2.3.7:

(a) oversee, review and discuss progress and performance of the Collaboration Programs, including serving as a forum for exchanging information and facilitating discussions regarding the conduct of the Collaboration Programs, the Collaboration Candidates and the Development and Manufacture thereof, which may include proposing an Initial Development Plan for review and approval by the Parties;

(b) review and comment on Collaboration Candidates, Drug Candidates, and the Development and Manufacture thereof;

(c) review and make recommendations with respect to potential collaborations or subcontracts with universities or other academic research centers;

(d) provide input on the strategic direction of the Collaboration Programs;

(e) encourage and facilitate cooperation and communication between the Parties with respect to each Collaboration Program;

(f) after appropriate discussion by the Patent Liaisons, discuss material issues and provide input to each Party regarding the Company IP, including the enforcement and defense of Company IP;

(g) discuss and attempt to resolve any disputes in any Subcommittees; and

(h) have such other responsibilities as specifically set forth in this Agreement or as may be otherwise mutually agreed by the Parties from time to time.

2.3.6 Limitations. For purposes of clarity, the JSC will not have any authority beyond the specific matters set forth in Section 2.3.5 (or otherwise expressly set forth in this Agreement), and in particular will not have any power to (i) amend, modify, interpret or waive the terms of this Agreement, (ii) alter, increase, expand or waive compliance by a Party with a Party's obligations under this Agreement, (iii) direct the conduct by a Party of its obligations under this Agreement, (iv) impose any requirements that the other Party take or decline to take any action that would result in a violation of any Law or any agreement with any Third Party or the infringement of intellectual property rights of any Third Party, (v) take any action that conflicts with this Agreement, or (vi) request or require the Parties to conduct any activities under this Agreement with respect to compounds or products other than Collaboration Candidates or Collaboration Products.

2.3.7 Decisions. The members of the JSC will act in good faith to cooperate with one another and seek agreement and consensus with respect to issues to be decided by the JSC. Except as otherwise set forth in this Agreement, decisions of the JSC will be made by unanimous vote, with each Party's designated JSC members having collectively [***] vote in all decisions. The presence of at least [***] JSC member representing each Party will constitute a quorum in order for decisions to be made. If the JSC cannot agree on a matter for which the JSC has decision-making authority within [***] after it has met and attempted to reach such decision, then either Party may, by written notice to the other, have such issue referred to the Executive Officers for resolution. The Parties' respective Executive Officers will meet within [***] after such matter is referred to them, and will negotiate in good faith to resolve the matter. If the Executive Officers are unable to resolve the matter within [***], or such other longer time frame the Executive Officers may otherwise agree upon, after the matter is referred to them in accordance with this Section 2.3.7, then Company will have final decision-making authority; provided, that Company will consider in good faith the positions of Celgene and use good faith efforts to address such positions in making such final decision. Notwithstanding the foregoing, in exercising Company's final decision-making authority, Company will not have the right to exercise its final decision-making authority to: (a) determine that it has fulfilled any obligations under this Agreement or that Celgene has breached any obligation under this Agreement; (b) determine that milestone events or other events have or have not occurred; (c) make a decision that is stated to require the mutual agreement or mutual consent of the Parties (or that is subject to the determination of the other Party as set forth herein); (d) determine any matter that is the subject of the dispute resolution provided for in Section 3.2; or (e) otherwise expand a Party's rights or reduce a Party's obligations under this Agreement. Any final decision made by Company in the course of exercising its final decision-making authority must be consistent with the terms of this Agreement and within the scope of authority delegated to the JSC under this Agreement.

2.3.8 Exceptions for Celgene Compounds. Notwithstanding the provisions of Section 2.3.7 or anything to the contrary contained herein, no activities performed by or on behalf of Company or any of its Affiliates hereunder, including any combination studies or other activities under any Collaboration Programs, may involve any Celgene Compound without Celgene's prior written consent (in its sole discretion), and such decisions and determinations will not be under the purview of the JSC (or Company). In the event that Celgene approves any such activities with respect to any such Celgene Compound (or as a condition to such approval), then at the request of Celgene, the Parties will negotiate in good faith and enter into a separate agreement with respect to the terms and conditions under which such activities may be undertaken under this Agreement with respect to any Celgene Compound.

2.3.9 Agenda; Minutes. The Chairperson or the Chairperson's delegate will be responsible for: (a) preparing JSC meeting agendas reasonably in advance of JSC meetings, which JSC meeting agendas will include all agenda items reasonably requested by any JSC member for inclusion therein; (b) sending invitations and a JSC meeting agenda along with appropriate information for such agenda to all members of the JSC at least [***] before the next scheduled meeting of the JSC; and (c) preparing and circulating draft written minutes within [***] after each meeting of the JSC setting forth, among other things, a description, in reasonable detail, of the discussions at the meeting and a list of any actions, decisions, or determinations approved by the JSC. Such minutes will be effective only after being approved by both Parties. Definitive minutes of all JSC meetings will be finalized no later than [***] after the meeting to which the minutes pertain.

ARTICLE 3
COLLABORATION PROGRAMS

3.1 Collaboration Programs.

3.1.1 Generally. During the Collaboration Term, Company may conduct Collaboration Programs, including evaluation and discovery activities, to characterize and identify Collaboration Candidates and to identify one or more Drug Candidates. Company will consult with Celgene regarding the Collaboration and each Collaboration Program through its participation on the JSC. Company will be responsible for the Development strategy and the conduct of activities under the Collaboration solely during the Collaboration Term, and will determine, at its sole discretion, which Collaboration Candidates to pursue for the Collaboration. Company will ensure that no Encumbered Compounds are Developed under a Collaboration Program. Company will be responsible for the Manufacture of Collaboration Candidates in connection with each Collaboration Program prior to any exercise by Celgene of its Opt-in with respect to such Collaboration Program.

3.1.2 Reports; Results. At each meeting of the JSC or as otherwise agreed by the Parties, Company will provide the JSC with written reports or presentations identifying each Collaboration Candidate or potential Drug Candidate under Development by Company and its Affiliates and summarizing the results, information, data generated by and material developments, including any Significant Developments, with respect to each Collaboration Program.

3.1.3 Drug Candidate Designation.

(a) During the Collaboration Term, Company will notify Celgene, on a regular basis at JSC meetings, of Collaboration Candidates identified by or on behalf of Company (or any of its Affiliates) in the course of its ongoing Development activities performed in its sole discretion, as well as any material developments or new data or information relating to previously identified Collaboration Candidates. The identity of such Collaboration Candidates will be included in the minutes of the JSC meeting.

(b) During the Collaboration Term, Company will notify Celgene, on a regular basis at JSC meetings, of potential Drug Candidates identified by or on behalf of Company (or any of its Affiliates) in the course of its ongoing Development activities, as well as notify Celgene with respect to material developments or new data relating to such potential Drug Candidates.

(c) At least [***] prior to the Expiration Date, (i) Company may, in its sole discretion, provide a Summary Drug Candidate Data Package to Celgene for each Collaboration Program for which a Phase 1b Clinical Trial Opt-in Trigger has not been achieved as of such date, and (ii) Celgene may, in its sole discretion, make a one-time payment of [***] to Company within [***] of receipt of such Summary Drug Candidate Package (the "**Data Package Fee**"). Company shall provide the Drug Candidate Data Package to Celgene as set forth in Section 3.1.4 for each Collaboration Program with respect to which a Data Package Fee has been paid, and in such case, the lead Collaboration Candidate for such Collaboration Program will be deemed to be a "Drug Candidate" notwithstanding that a Phase 1b Clinical Trial Opt-in Trigger has not been achieved with respect to such Collaboration Candidate. For the avoidance of doubt, any payment of the Data Package Fee will be in addition to, and not as a replacement of, the Opt-in Exercise Fee.

3.1.4 Drug Candidate Data Package. If (a) Company achieves a Phase 1b Clinical Trial Opt-in Trigger or (b) Celgene pays the Data Package Fee in accordance with Section 3.1.3(c), then, in each case (a) and (b), Company will, within [***] after such achievement or receipt of such payment (but in no event later than the Expiration Date), provide to Celgene, or a Third Party advisor designated by Celgene, a Drug Candidate Data Package for the applicable Drug Candidate. Following receipt of the Drug Candidate Data Package, Celgene shall have a period of [***] to review such Drug Candidate Data Package (as such period may be extended in accordance with this Section 3.1.4 or Section 4.2, the "**Review Period**"). From time to time during the Review Period, Celgene may provide Company with written notice identifying any data or information which is reasonably available to Company and that Celgene reasonably believes should be included in the Drug Candidate Data Package or would otherwise be useful in order for Celgene to evaluate the relevant Drug Candidate and whether it wishes to exercise its Opt-in for the applicable Collaboration Program (an "**Information Request**"), and Company shall use all reasonable efforts to provide such data and information responsive to such Information Request as promptly as practicable but in any event within [***] after receipt of such Information Request. For clarity, no Information Request shall require Company to conduct additional Development activities with respect to the Collaboration Program. With respect to any Information Request submitted by Celgene during the first [***] of the Review Period, to the extent that Celgene reasonably determines that Company has not provided such requested data or information in any material respect, Celgene shall notify Company thereof and the Review Period shall be extended by a period corresponding to the number of [***] between the expiration of the [***] period following Company's receipt of such Information Request and the date such requested data or information is provided by Company to Celgene.

3.1.5 Costs. Except as otherwise expressly set forth in this Agreement, (a) Company will be solely responsible for any and all costs and expenses incurred by or on behalf of Company or its Affiliates in connection with the performance of the Collaboration activities under this Agreement, including all Collaboration Program activities undertaken by or on behalf of Company, and (b) Celgene will be solely responsible for any and all costs and expenses incurred by or on behalf of Celgene or its Affiliates in connection with the performance of the Collaboration activities under this Agreement.

3.1.6 Confidential Information. All data and information disclosed hereunder by Company to Celgene relating to the Collaboration Programs (whether directly or via the JSC), including without limitation the information provided to Celgene or the JSC under Sections 3.1.2, 3.1.3 and 3.1.4, the Summary Drug Candidate Data Package, and Drug Candidate Data Package, in each case, to the extent constituting Confidential Information, shall Confidential Information of both Parties.

3.2 [***].

3.2.1 [***].

3.2.2 [***].

3.3 Regulatory Responsibilities.

3.3.1 Regulatory Materials. On a Collaboration Program-by-Collaboration Program basis, during the Collaboration Term, Company will have the right, in consultation with Celgene as described below, to prepare, file and maintain all Regulatory Materials (including any Regulatory Approvals, if any) necessary for the Development and Manufacture of any Collaboration Candidates and Collaboration Products for such Collaboration Program, and to interact with Regulatory Authorities in connection with the Development and Manufacture of any Collaboration Candidates and Collaboration Products for such Collaboration Program. Company will provide Celgene with a reasonable opportunity to comment substantively on all material Regulatory Materials prior to filing or taking material action, and will reasonably and in good faith consider any comments and actions recommended by Celgene, including with respect to filing strategy. In addition, Company will allow Celgene or its representative to attend any and all meetings with Regulatory Authorities to the extent such attendance is permitted by such Regulatory Authority.

3.3.2 Safety Information. Company will be responsible for all safety information reporting to Regulatory Authorities with respect to the Collaboration Programs, and will promptly provide Celgene with all material information concerning the pharmaceutical safety of each Collaboration Candidate and Collaboration Product.

3.4 Records. Company will maintain (and will cause its Affiliates and use commercially reasonable efforts to require subcontractors to maintain) complete and accurate records of all Development and Manufacturing activities conducted by or on behalf of it hereunder with respect to the AHR Program and Kynureninase Program, and all data and other information resulting from such activities. Such records will fully and properly reflect all work done and results achieved in the performance of such Development and Manufacturing activities in good scientific manner appropriate for regulatory and patent purposes. In connection with such Development and Manufacturing activities, Company will (and will cause its Affiliates and subcontractors to) document all studies, including all IND-enabling studies for Collaboration Products, in formal written study records according to Laws, including national and international guidelines such as ICH, GCP, GLP and GMP. Celgene will have the right, from time to time, to review and copy such records pertaining to the AHR Program and/or Kynureninase Program, as reasonably requested by Celgene.

3.5 Subcontracting. Subject to the terms of this Agreement, each Party will have the right to engage Affiliates or Third Party subcontractors to perform its obligations under this Agreement, subject to the remainder of this Section 3.5 and Section 2.3.5(c). The Party engaging such Affiliate or Third Party subcontractor will ensure that such Affiliate or Third Party will meet the qualifications typically required by such Party for the performance of work similar in scope and complexity to the subcontracted activity and will perform such work consistent with the terms of this Agreement; provided, however, that any Party engaging an Affiliate or Third Party subcontractor hereunder will remain fully responsible and obligated for such activities. The Party engaging an Affiliate or Third Party subcontractor will ensure that such Affiliate or Third Party subcontractor, as applicable, complies with all applicable provisions of this Agreement and, without limiting the foregoing, prior to subcontracting to any subcontractor, Company will have entered into a written agreement with such subcontractor that complies with the terms set forth on Schedule 3.5 (the "**Subcontracting Essential Provisions**"). For purposes of this Section 3.5, "Third Party subcontractors" will include collaborators of Company, including any academic institution.

3.6 Audit. During the Review Period for a particular Collaboration Program, Celgene will have the one-time (per Collaboration Program) right, at its own cost, to audit and inspect Company's (and its Affiliates' and subcontractors') activities under such Collaboration Program, which will include the right to access Company's records and facilities (including records and facilities of Company's Affiliates and subcontractors regarding work conducted under the Collaboration Program) to confirm compliance with the requirements of, and performance under, this Agreement. Such audit and inspection will be reasonably coordinated in advance between the Parties and will be designed to minimize disruption of Company's day-to-day activities.

3.7 Material Transfer.

3.7.1 Transfer.

(a) On a Collaboration Program-by-Collaboration Program basis, during the Collaboration Term, upon mutual agreement by Company and Celgene, Celgene may transfer to Company Celgene Compounds for such purposes(s) as the Parties may agree. All transfers of such Celgene Compounds by Celgene to Company will be documented in a collaboration material transfer agreement in a form mutually acceptable to the Parties (each, a "**Collaboration Material Transfer Agreement**"), which will set forth the name and amount of the Celgene Compounds transferred, the date of the transfer of such Celgene Compounds, and a reasonably detailed explanation of the purpose of such transfer. The Parties agree that the exchanged Celgene Compounds will be used in compliance with Law and the terms and conditions of this Agreement, and will not be reverse engineered or chemically analyzed, except as required for the purpose agreed to by the Parties and stated in the relevant Collaboration Material Transfer Agreement. Company will only use the Celgene Compounds for the applicable purpose and no other purpose.

(b) On a Collaboration Program-by-Collaboration Program basis, during the Collaboration Term, upon mutual agreement by Company and Celgene, Company may transfer to Celgene biological or chemical materials (collectively, "**Materials**"). All transfers of such Materials by Company to Celgene will be documented in a Collaboration Material Transfer Agreement, in a form mutually acceptable to the Parties, which will set forth the type and name of the Materials transferred, the amount of the Materials transferred, the date of the transfer of such Materials, and a reasonably detailed explanation of the purpose of such transfer. The Parties agree that any such exchanged Materials will be used in compliance with Law and the terms and conditions of this Agreement, and will not be reverse engineered or chemically analyzed, except as required for the purpose agreed to by the Parties and stated in the relevant Collaboration Material Transfer Agreement. Celgene will only use the Materials for the applicable purpose and no other purpose.

3.7.2 License; Ownership. Effective at the time that Company provides any Materials to Celgene as provided in Section 3.7.1(b), and to the extent not separately licensed under this Agreement, Company hereby grants to Celgene a non-exclusive license under the Patents and Know-How Controlled by Company and its Affiliates (including the Company IP) to use such Materials solely for the purposes set forth in the applicable Collaboration Material Transfer Agreement. Except as otherwise provided under this Agreement (or a Global License Agreement), all such Materials delivered by Company and its Affiliates to Celgene will remain the sole property of Company and its Affiliates, will only be used by Celgene in furtherance of the purposes set forth in the applicable Collaboration Material Transfer Agreement, and will, at Company's option, be returned to Company or destroyed upon the earliest of (a) termination of this Agreement, (b) completion of the purposes set forth in the applicable Collaboration Material Transfer Agreement, or (c) discontinuation of the use of such Materials by Celgene. Effective at the time that Celgene provides any Celgene Compounds to Company as provided in Section 3.7.1(a) and 2.3.8, as applicable, and to the extent not separately licensed under this Agreement, Celgene hereby grants to Company a non-exclusive license under the Patents and Know-How Controlled by Celgene and its Affiliates to use such Celgene Compounds solely for the purposes set forth in the applicable Collaboration Material Transfer Agreement. Except as otherwise provided under this Agreement, all such Celgene Compounds delivered by Celgene to Company will remain the sole property of Celgene, will only be used by Company in furtherance of the purposes set forth in the applicable Collaboration Material Transfer Agreement, and will be, at Celgene's option, returned to Celgene or destroyed upon the earliest of (a) termination of this Agreement, (b) completion of the purpose set forth in the applicable Collaboration Material Transfer Agreement, or (c) discontinuation of the use of such Celgene Compounds by Company.

3.8 Compliance Provisions.

3.8.1 General. Each Party will conduct, and will ensure that its Affiliates and Third Party contractors conduct, all activities hereunder, including all Development and Manufacture of Collaboration Candidates and Collaboration Products and any activities under a Collaboration Material Transfer Agreement, in compliance with all Laws, and each Party will promptly notify the other Party in writing of any deviations from Laws. In addition, each Party hereby certifies that it and its Affiliates have not, and, to its knowledge, any Third Party subcontractors have not, employed or otherwise used in any capacity, and will not employ or otherwise use in any capacity, the services of any Person (a) debarred under United States law

(including Section 21 U.S.C. 335a) or any foreign equivalent thereof, or (b) that is the subject of an FDA debarment investigation or proceeding (or similar proceeding by any Regulatory Authority outside the United States), in each case, in performing any portion of the activities (i) hereunder, including any Development and Manufacture of Collaboration Candidates and Collaboration Products, or (ii) under a Collaboration Material Transfer Agreement. Each Party will notify the other Party in writing immediately if any such debarment comes to its attention, and will, with respect to any Person so debarred promptly remove such Person from performing any such activities, function or capacity related to any such activities.

3.8.2 Animal Research. Without limiting the provisions of Section 3.8.1, if animals are used in the Development of Collaboration Candidates or Collaboration Products, or activities under a Collaboration Material Transfer Agreement, then each Party will comply, and will ensure that its Affiliates and Third Party contractors comply, with the U.S. Animal Welfare Act and any other Laws relating to the care and use of laboratory animals. Each Party encourages the other Party to use the highest standards, such as those set forth in the Guide for the Care and Use of Laboratory Animals (NRC, 1996), for the humane handling, care and treatment of such research animals. Any animals which are used in the course of the activities hereunder or under a Collaboration Material Transfer Agreement, or products derived from those animals, such as eggs or milk, will not be used for food purposes, nor will these animals be used for commercial breeding purposes.

3.8.3 Use of Human Materials. Without limiting the provisions of Section 3.8.1, if any human cell lines, tissue, human clinical isolates or similar human-derived materials (the "**Human Materials**") are to be collected or used in the activities hereunder or activities under a Collaboration Material Transfer Agreement, Company covenants (a) that it will comply, and will ensure that its Affiliates comply, and will use commercially reasonable efforts to ensure that its Third Party contractors comply, with all Laws relating to the collection or use of the Human Materials, and (b) that it has obtained, or will obtain, and will use commercially reasonable efforts to ensure that its Affiliates and Third Party contractors have obtained or will obtain, all necessary approvals and appropriate informed consents, in writing, for the collection or use of such Human Materials. Each party will provide documentation of such approvals and consents to the other Party upon such other Party's request. Each Party further represents and warrants that such Human Materials may be used as contemplated in this Agreement without any obligations to the individuals or entities ("**Providers**") who contributed the Human Materials, including any obligations of compensation to such Providers or any other Third Party for the intellectual property associated with, or commercial use of, the Human Materials for any purpose. Without limiting the foregoing, to the extent a Party (or its Affiliates or Third Party contractors) will be providing the other Party with access to Protected Health Information ("**PHI**"), as defined by HIPAA (or similar Law outside the United States, as applicable), about subjects in connection with any Clinical Trial under a Collaboration Program, such Party agrees, represents and warrants that it has obtained or will obtain (prior to providing such PHI access to such other Party) from each such subject an authorization in compliance with applicable Data Protection Laws sufficient to allow such Party to provide such information to such other Party for access, license and use by such other Party as set forth herein, or, to the extent applicable, waiver of authorization from an institutional review board or privacy board.

3.8.4 Compliance with Ethical Business Practices. By signing this Agreement, each Party agrees to conduct the activities contemplated herein (including activities under any Collaboration Material Transfer Agreement), and to ensure that its Affiliates conduct the activities contemplated herein, and to use commercially reasonable efforts to ensure that its sublicensees and Third Party contractors conduct the activities contemplated herein, in a manner consistent with both Laws and good business ethics.

3.8.5 Governments and International Public Organizations. Without limitation of the foregoing, each Party represents and warrants that none of its employees, agents, officers or other members of its management (or any employees, agents, officers or other members of management of any of its Affiliates, sublicensees or Third Party contractors) are officials, officers, agents or representatives of any government or public international organization. Neither Party will make any payment, and will ensure that its Affiliates do not make any payment, and will use commercially reasonable efforts to ensure that its sublicensees and Third Party contractors do not make any payment, either directly or indirectly, of money or other assets, including any compensation Company derives from this Agreement (hereinafter collectively referred to as a "**Payment**"), to government or political party officials, officials of public international organizations, candidates for public office, or representatives of other businesses or Persons acting on behalf of any of the foregoing (hereinafter collectively referred to as "**Officials**") where such Payment would constitute a violation of any Law. In addition, regardless of legality, neither Party will knowingly make any Payment, and will ensure that its Affiliates do not make any Payment, and will use commercially reasonable efforts to ensure that its Third Party contractors do not make any Payment, either directly or indirectly, to Officials if such Payment is made for the purpose of influencing decisions or actions with respect to the subject matter of this Agreement or any other aspect of such Party's business.

3.8.6 Anti-Bribery Policies and Procedures. By executing this Agreement, each Party represents, warrants, or covenants that it has adopted or will adopt, prior to commencement of a Clinical Trial under the Collaboration, policies, procedures and processes (collectively, "**Anti-Bribery Policies**") to ensure compliance by such Party and its Affiliates with anti-bribery Laws, such as the United States Anti-Kickback Statute, Foreign Corrupt Practices Act and the UK Bribery Act, each as applicable. Each Party further represents and warrants that such Anti-Bribery Policies ensure that any fees or other transfers of value paid by such Party, its Affiliates or Third Party contractors to healthcare professionals and healthcare providers shall reflect the fair market value for the services rendered.

3.8.7 No Authority. Company acknowledges that no employee of Celgene or its Affiliates will have authority to give any direction, either written or oral, relating to the making of any commitment by Company or its agents to any Third Party in violation of terms of this Agreement.

3.8.8 Exclusions Lists. Neither Party will knowingly use (and each Party will cause its Affiliates and Third Party contractors not to use) any Person (including any employee, officer, director or Third Party contractor) who is (or has been) on the Exclusions Lists, or who is (or has been) in Violation, in the performance of any activities hereunder (or under a Collaboration Material Transfer Agreement). Each Party certifies to the other Party that, as of the Collaboration Effective Date, such Party has screened itself, and its officers and directors

(and its Affiliates and Third Party contractors and their respective officers and directors) against the Exclusions Lists and that it has informed the other Party in writing whether such Party, or any of its officers or directors (or any of its Affiliates or Third Party contractors or any of their respective officers and directors) has been in Violation. After the execution of this Agreement, each Party will notify the other Party in writing immediately if any such Violation comes to its attention.

3.9 Global License Agreement. Notwithstanding the foregoing provisions of this Article 3, if a Global License Agreement is entered into with respect to a given Collaboration Program, then, except as otherwise expressly set forth in such Global License Agreement, Company's (and its Affiliates' and subcontractors') conduct of such Collaboration Program hereunder will cease, and the provisions of such Global License Agreement will control with respect to such Collaboration Program. In the event of a conflict between any Global License Agreement and this Agreement, any Collaboration Material Transfer Agreement or other agreement between the Parties or their Affiliates, the terms of such Global License Agreement will control. For the avoidance of doubt, except to the extent provided in the applicable Global License Agreement, Company shall not have any obligation to continue to perform Collaboration Program activities with respect to a Collaboration Program following the License Effective Date of a Global License Agreement for such Collaboration Program.

ARTICLE 4
OPT-IN

4.1 Opt-in Grant. Subject to the terms and conditions of this Agreement, on a Collaboration Program-by-Collaboration Program basis, Company hereby grants to Celgene the exclusive right, exercisable at any time during the applicable Opt-in Term, to enter into a Global License Agreement with respect to such Collaboration Program on the terms and conditions set forth in the applicable Global License Agreement (each, an "**Opt-in**"). Notwithstanding anything to the contrary in this Agreement or any Global License Agreement, including the use of the term "opt-in" (or any derivation thereof), the Parties agree that the Opt-in is not treated as an option for U.S. federal (or applicable state or local) income tax purposes, and furthermore agree not to take any position inconsistent with the foregoing.

4.2 Opt-in Exercise. On a Collaboration Program-by-Collaboration Program basis, during the applicable Opt-in Term, Celgene will have the right, but not the obligation, to exercise the Opt-in for such Collaboration Program, in its sole discretion, by delivering written notice of such exercise to Company (in each case, the "**Opt-in Exercise Notice**"). Within [***] following delivery of an Opt-in Exercise Notice, and subject to Section 4.4, each of Celgene (or any Affiliate(s) designated by Celgene) and Company will enter into a Global License Agreement with respect to such Collaboration Program, and will update the exhibits and schedules thereto; provided, that no such update may disclose as an exception to Company's representations and warranties in the Global License Agreement any item that was not identified as such in the Drug Candidate Data Package for such Collaboration Program, other than new items resulting from occurrences during the intervening period or knowledge acquired during the intervening period; provided, that if any such new items are provided less than [***] prior to the expiration of the Review Period, the Review Period shall be extended as necessary to permit Celgene no fewer than [***] to consider such additional disclosures. On a Collaboration Program-by-Collaboration Program basis, if Celgene fails to provide its Opt-in Exercise Notice before the expiration of the applicable Opt-in Term, then Celgene's Opt-in will expire with respect to such Collaboration Program, and Celgene shall have no further rights with respect to such Collaboration Program.

4.3 Covenant. Company and its Affiliates will not (a) assign, transfer, convey, encumber (including any liens or charges) or dispose of, or enter into any agreement with any Third Party to assign, transfer, convey, encumber (including any liens or charges) or dispose of, any assets related to a Collaboration Program, including with respect to any such Collaboration Program's Collaboration Target, Collaboration Candidates, Collaboration Products, Collaboration IP or other Company IP (the "**Collaboration Program Assets**"), (b) license or grant to any Third Party, or agree to license or grant to any Third Party, any rights to any Collaboration Program Assets, or (c) disclose any Confidential Information relating to the Collaboration Program or any Collaboration Program Assets to any Third Party, if in each case ((a), (b), and (c)) such activity would impair or conflict in any respect with any of the rights or licenses granted to Celgene hereunder, including the Opt-ins and the licenses that would be granted under any Global License Agreement. For clarity, this Section 4.3 is not intended to prevent Company or its Affiliates from entering into agreements with subcontractors in the ordinary course of business and in accordance with Section 3.5.

4.4 Government Approvals.

4.4.1 Efforts. Each of Company and Celgene will use its commercially reasonable good faith efforts, consistent with Law, to eliminate any concern on the part of any Governmental Authority regarding the legality of any proposed Global License Agreement under any Antitrust Law, including, if required by federal or state antitrust authorities, promptly taking commercially reasonable steps to secure government antitrust clearance, including cooperating in good faith with any government investigation, including by making an appropriate response to any request (including a second request) by a Governmental Authority for documents or information or, subject to the mutual agreement of the Parties, amending the applicable Global License Agreement as requested by a Governmental Authority. Notwithstanding the foregoing, this Section 4.4.1 and the term "commercially reasonable good faith efforts" and "commercially reasonable steps" do not require that either Party (a) offer, negotiate, commit to or effect, by consent decree, hold separate order, trust or otherwise, the sale, divestiture, license or other disposition of any capital stock, assets, rights, products or businesses of Company, Celgene or their respective Affiliates, (b) agree to any restrictions on the businesses of Company, Celgene or their respective Affiliates, or (c) pay any amount or take any other action to prevent, effect the dissolution of, vacate, or lift any decree, order, judgment, injunction, temporary restraining order, or other order in any suit or proceeding that would otherwise have the effect of preventing or delaying the transactions contemplated by any proposed Global License Agreement.

4.4.2 Antitrust Filings. At the written request of Celgene, each of Company and Celgene will, or will cause their applicable Affiliate(s) to, within [***] after the execution of a Global License Agreement (or such later time as may be agreed to in writing by the Parties) prepare and file with the U.S. Federal Trade Commission ("**FTC**") and the Antitrust Division of the U.S. Department of Justice ("**DOJ**") any HSR Filing required of such Party under the HSR Act and any other filings, notices, applications or other submissions required of it under Antitrust

Laws (collectively, "**Antitrust Filings**"), in each case the necessity of which has been determined in the reasonable opinion of Celgene with respect to the transactions contemplated by such Global License Agreement. The Parties will cooperate with one another to the extent necessary in the preparation of any such Antitrust Filings. Each Party will be responsible for its own costs, expenses, and filing fees associated with any Antitrust Filing; provided, however, that Celgene will pay all fees (other than penalties that may be incurred as a result of actions or omissions on the part of a Party, which penalties will be the sole financial responsibility of such Party) required to be paid to any Governmental Authority in connection with making any such Antitrust Filing. If the Parties make any Antitrust Filing(s) under this Section 4.4.2, each of Company and Celgene will have the right to terminate the relevant Global License Agreement immediately upon written notice to the other Party, in the event that (a) the FTC or DOJ obtains a preliminary injunction under the HSR Act against the Parties to enjoin the transactions contemplated by such Global License Agreement or any other Governmental Authority enjoins the transactions contemplated by such Global License Agreement in accordance with Antitrust Laws, or (b) the HSR Clearance Date has not occurred and any other applicable antitrust clearances have not been obtained on or prior to [***] after the execution date of the Global License Agreement. Notwithstanding anything to the contrary contained herein, except for the terms and conditions of this Section 4.4.2, none of the terms and conditions contained in the applicable Global License Agreement (including the obligation for Celgene to make any payments thereunder, as well as the obligation of Celgene to pay the Opt-in Exercise Fee hereunder), will be effective until the "**License Effective Date**," which is agreed and understood to mean the later of (i) the date of execution of the Global License Agreement, or (ii) if a determination is made by Celgene pursuant to this Section 4.4.2 that any Antitrust Filing(s) is required, the receipt of any such required antitrust clearance(s). As used herein: (A) "**HSR Clearance Date**" means the earliest date that all applicable waiting periods under the HSR Act with respect to the transactions contemplated by a Global License Agreement have expired or have been terminated; and (B) "**HSR Filing**" means a filing by Company and Celgene or their ultimate parent entities (as that term is defined in the HSR Act) with the FTC and the DOJ of a Notification and Report Form for Certain Mergers and Acquisitions (as that term is defined in the HSR Act) with respect to the matters set forth in the Global License Agreement, together with all required documentary attachments thereto.

4.4.3 Information Exchange. Each of Company and Celgene will, in connection with any Antitrust Filing: (a) reasonably cooperate with each other in connection with any communication, filing or submission and in connection with any investigation or other inquiry, including any proceeding initiated by a private party; (b) keep the other Party or its counsel informed of any communication (and if in writing, provide a copy to the other Party or its counsel) received by such Party from, or given by such Party to, the FTC, the DOJ or any other Governmental Authority or given in connection with any proceeding by a private party, in each case regarding the transactions contemplated by any proposed Global License Agreement; (c) consult with each other in advance of any meeting or conference with the FTC, the DOJ or any other Governmental Authority or, in connection with any proceeding by a private party, with such private party, and to the extent permitted by the FTC, the DOJ or such other Governmental Authority or such private party, give the Parties or their counsel the opportunity to attend and participate in such meetings and conferences; and (d) permit the other Party or its counsel to review in advance any submission, filing or communication (and documents submitted therewith) intended to be given by it to the FTC, the DOJ or any other Governmental Authority,

or, in connection with any proceeding by a private party, to such private party; provided, that (i) materials may be redacted to remove references concerning the valuation of the business of Company or any Collaboration Program, and (ii) neither Party is required to share with the other Party its HSR Filing and the documents produced by such Party in response to Items 4c or 4d of its HSR Filing. Company and Celgene, as each deems advisable and necessary, may designate any competitively sensitive material to be provided to the other under this Section 4.4.3 as "Antitrust Counsel Only Material". Such materials and the information contained therein will be given only to the outside antitrust counsel of the recipient and will not be disclosed by such outside counsel to employees, officers or directors of the recipient unless express permission is obtained in advance from the source of the materials (Company or Celgene, as the case may be) or the applicable Party's legal counsel.

4.4.4 Assistance. Subject to this Section 4.4, at the reasonable request of Celgene, Company and Celgene will cooperate and use respectively all reasonable efforts to make all other registrations, filings and applications, to give all notices and to obtain as soon as practicable all governmental or other consents, transfers, approvals, orders, qualifications, authorizations, permits and waivers, if any, and to do all other things necessary or desirable for the consummation of the transactions as contemplated by a Global License Agreement in accordance with applicable Antitrust Laws.

4.4.5 No Further Obligations. If a Global License Agreement is terminated pursuant to this Section 4.4, then, notwithstanding any provision in this Agreement to the contrary, neither Party will have any further obligation to the other Party with respect to the subject matter of such Global License Agreement, including any payment obligations on the part of Celgene.

ARTICLE 5
EXCLUSIVITY

5.1 Prior to Opt-in. On a Collaboration Program-by-Collaboration Program basis, prior to the expiration of the Opt-in Term for such Collaboration Program, Company and its Affiliates will not (and Company will ensure that its Affiliates do not): (a) alone or with or for any Third Party, Develop (including drug discovery, screening or pre-clinical or clinical research), Manufacture or Commercialize any Collaboration Competing Product that is Directed to the Collaboration Target for such Collaboration Program, in each case, other than in performance of Collaboration activities under this Agreement; (b) grant a license, sublicense, option or other rights to any Third Party to conduct any of the activities in the foregoing clause (a), other than in performance of Collaboration activities under this Agreement; or (c) transfer, assign, convey or otherwise sell any Collaboration Competing Product that is Directed to the Collaboration Target for such Collaboration Program, or any rights in any such Collaboration Competing Product, or grant an option to do any of the foregoing. Notwithstanding anything herein to the contrary, in the event of a Change of Control of Company, the restrictions set forth in this Section 5.1 shall not apply to any Collaboration Competing Product Controlled by the Acquiring Entity on or after the date of such Change of Control of Company provided that, from and after the Change of Control, such Acquiring Entity Segregates the applicable Collaboration Competing Product.

5.2 Post Opt-in.

5.2.1 By Company and its Affiliates. Without limiting Section 5.1, if Celgene exercises its Opt-in with respect to a particular Collaboration Program, Company agrees and acknowledges that it (and its Affiliates) will be bound by the exclusive license and the other exclusivity provisions set forth in the applicable Global License Agreement for such Collaboration Program; provided, however, that the provisions of Section 5.1 shall remain in force until the occurrence of the License Effective Date for such Global License Agreement.

5.2.2 By Celgene and its Affiliates. If Celgene exercises its Opt-in with respect to a particular Collaboration Program, then from and after the occurrence of the License Effective Date for the relevant Global License Agreement, Celgene agrees and acknowledges that Celgene (and its Affiliates) will be bound by the exclusivity provisions set forth in the applicable Global License Agreement with respect to such Collaboration Program.

ARTICLE 6
FINANCIAL TERMS

6.1 Upfront Payment. In consideration for the rights granted to Celgene under this Agreement, Celgene will pay to Company within [***] after the Collaboration Effective Date a one-time irrevocable, non-refundable upfront payment of Eighty Million, Four Hundred Fifty-Four Thousand and Five Hundred Fifty U.S. Dollars ($80,454,550.00).

6.2 Opt-in Exercise Fees. Subject to Section 4.4, in the event that Celgene exercises its Opt-in for a given Collaboration Program, Celgene will, within [***] after the License Effective Date for the Global License Agreement for such Collaboration Program, pay to Company a payment in the amount of the Opt-in Exercise Fee for such Collaboration Program. For the avoidance of doubt, Celgene will only be obligated to pay the Opt-in Exercise Fee [***] for a given Collaboration Program regardless of the number of Collaboration Candidates or Drug Candidates under such Collaboration Program. As used herein, the term “Opt-in Exercise Fee” means:

6.2.1 With respect to the AHR Program, an amount equal to (a) fifty million Dollars ($50,000,000), if the first IND Acceptance for a Collaboration Candidate within such Collaboration Program occurs on or prior to January 31, 2020; or (b) [***]; and

6.2.2 With respect to the Kynureninase Program, an amount equal to (a) [***], or (b) forty million Dollars ($40,000,000) if the first IND Acceptance for a Collaboration Candidate within such Collaboration Program occurs after July 31, 2020.

6.3 Other Amounts Payable. With respect to any amounts owed under this Agreement for which no other invoicing and payment procedure is specified in this Agreement, Company or Celgene, as applicable, will provide an invoice, together with reasonable supporting documentation, to the other Party for such amounts owed. Such Party will pay any undisputed amounts within [***] after receipt of the invoice, and will pay any disputed amounts owed by such Party within [***] of resolution of the Dispute.

6.4 Collaboration Program Payment Terms After Opt-in. All payments applicable to a Collaboration Program with respect to which Celgene has exercised its Opt-in hereunder (other than payment of the Opt-in Exercise Fee hereunder and any other accrued payment obligations hereunder), including milestone, royalties and other payments, shall be made pursuant to the applicable Global License Agreement, on the terms and conditions set forth therein.

6.5 Additional Payment Terms.

6.5.1 Accounting. All payments hereunder will be made in U.S. Dollars by wire transfer to a bank designated in writing by Company (if the payment is to be made to Company) or by Celgene (if the payment is to be made to Celgene).

6.5.2 Taxes; Withholding.

(a) Generally. Each Party will pay any and all taxes levied on account of all payments it receives under this Agreement, except as otherwise provided in this Section 6.5.2.

(b) Tax Withholding. Each Party will be entitled to deduct and withhold from any amounts payable under this Agreement such taxes as are required to be deducted or withheld therefrom under any provision of Law. The Party that is required to make such withholding (the "**Paying Party**") will: (i) deduct those taxes from such payment; (ii) timely remit the taxes to the proper taxing authority; and (iii) send evidence of the obligation together with proof of tax payment to the other Party (the "**Payee Party**") on a timely basis following that tax payment. Each Party agrees to reasonably cooperate with the other Party in claiming refunds or exemptions from such deductions or withholdings under any relevant agreement or treaty which is in effect to ensure that any amounts required to be withheld pursuant to this Section 6.5.2(b) are reduced in amount to the fullest extent permitted by Law. In addition, the Parties will cooperate in accordance with Law to minimize indirect taxes (such as value added tax, sales tax, consumption tax and other similar taxes) in connection with this Agreement.

(c) Tax Gross Up. Notwithstanding the foregoing, if (i) the Paying Party redomiciles, assigns its rights or obligations or extends its rights under this Agreement, (ii) as a result of such redomiciliation, assignment or extension, the Paying Party (or its assignee) is required by Law to withhold taxes from or in respect of any amount payable under this Agreement, and (iii) such withholding taxes exceed the amount of withholding taxes that would have been applicable but for such redomiciliation, assignment or extension, then any such amount payable shall be increased to take into account such withholding taxes as may be necessary so that, after making all required withholdings (including withholdings on the additional amounts payable) the Payee Party (or its assignee) receives an amount equal to the sum it would have received had no such increased withholding been made. The obligation to pay additional amounts pursuant to the preceding sentence (1) shall not apply to the extent such increased withholding tax (x) would not have been imposed but for any assignment or extension by the Payee Party of its rights or obligations under this Agreement or any redomiciliation of such Payee Party, or (y) are attributable to the failure by the Payee Party to comply with the requirements of Section 6.5.2(d), and (2) shall be reduced by the amount of any Tax Benefit

available to the Payee Party. For purposes of the preceding sentence, "Tax Benefit" shall mean any reduction or refund of, or credit against, taxes to which the Payee Party is subject as a result of withheld amounts relating to payments by the Paying Party, as determined to the reasonable mutual satisfaction of the Parties. Solely for purposes of this Section 6.5.2(c), a Party's "domicile" shall include its jurisdiction of incorporation or tax residence and a "redomiciliation" shall include a reincorporation or other action resulting in a change in tax residence of the applicable Party or its assignee, or resulting in the attribution of any amounts payable to a branch or permanent establishment located outside the country of tax residence of the applicable Party or its assignee.

(d) Tax Documentation. Company has provided a properly completed and duly executed IRS Form W-9 to Celgene. Prior to the receipt of any payment under this Agreement, each recipient Party (and any other recipient of payments under this Agreement) shall, to the extent it is legally permitted to, provide to the other Party, at the time or times reasonably requested by such other Party or as required by Law, such properly completed and duly executed documentation (for example, IRS Forms W-8 or W-9 or foreign equivalents) as will permit payments made under this Agreement to be made without, or at a reduced rate of, withholding for taxes.

(e) Interest Due. Celgene will pay Company interest on any undisputed payments that are not paid on or before the date such payments are due under this Agreement at the per annum rate of [***] over the then-current prime rate quoted by Citibank in New York City or the maximum rate allowable by Law, whichever is lower.

(f) Blocked Payments. In the event that, by reason of Law in any country, it becomes impossible or illegal for Celgene to transfer, or have transferred on its behalf, payments owed Company hereunder, Celgene will promptly notify Company of the conditions preventing such transfer and such payments will be deposited in local currency in the relevant country to the credit of Company in a recognized banking institution designated by Company or, if none is designated by Company within a period of [***], in a recognized banking institution selected by Celgene, as the case may be, and identified in a written notice given to Company.

6.5.3 Company Third Party Agreements. For the avoidance of doubt, notwithstanding anything to the contrary herein, Company will be solely responsible for (and will reimburse Celgene for, to the extent paid or payable by Celgene or any of its Affiliates) all costs and payments of any kind (including all upfront fees, annual payments, milestone payments and royalty payments) arising under any agreements between Company (or any of its Affiliates) and any Third Party (each, a "**Company Agreement**"), which costs or payments arise in connection with, or as a result of, the activities under this Agreement, including the Development or Manufacture of Collaboration Candidates or Collaboration Products. On a Collaboration Program-by-Collaboration Program basis, upon the occurrence of the License Effective Date for the applicable Global License Agreement for such Collaboration Program, the responsibility of each Party for all costs and payments of any kind (including all upfront fees, annual payments, milestone payments and royalty payments) arising under any Company Agreement with respect to such Collaboration Program shall be governed in accordance with and pursuant to the terms of the applicable Global License Agreement.

ARTICLE 7
LICENSES; INTELLECTUAL PROPERTY

7.1 License to Celgene. On a Collaboration Program-by-Collaboration Program basis, Company hereby grants to Celgene a non-exclusive, worldwide, fully paid-up, non-transferable (other than in accordance with Section 13.4) royalty-free right and license, with the right to grant sublicenses solely to Affiliates and subcontractors performing on behalf of Celgene, under the Company IP, for Celgene to conduct the Development and Manufacturing activities under such Collaboration Program in accordance with this Agreement, if any, that (i) the Parties mutually agree should be conducted or (ii) are expressly permitted in this Agreement to be conducted by Celgene.

7.2 Licenses to Company.

7.2.1 Celgene Collaboration IP. On a Collaboration Program-by-Collaboration Program basis, during the Collaboration Term, Celgene hereby grants to Company a non-exclusive, worldwide, fully paid-up, royalty-free right and license, with the right to grant sublicenses to Company's Affiliates and subcontractors performing on Company's behalf in accordance with this Agreement, under the Celgene Collaboration IP for Company to conduct its activities and perform under such Collaboration Program in accordance with this Agreement. With respect to Celgene Collaboration IP that also Covers the manufacture, use, offer for sale, sale or importation of any Celgene Compound, such license shall not include a license to make, manufacture, use, offer for sale, sell or import such Celgene Compound, except as mutually agreed in writing between the Parties. Upon such mutual agreement by the Parties for Company to perform any Development of any Celgene Compound, the Parties may negotiate an appropriate license with respect to such Celgene Compound on terms and conditions set forth under a separate agreement.

7.2.2 Celgene Background IP. In the event that Company desires to utilize any Celgene Background IP for the performance of a Collaboration Program (other than rights to use Celgene Compounds that are provided by Celgene to Company, which rights are governed by Section 3.7.1), Company may request such right in writing from Celgene (which writing will identify the particular Celgene Background IP that Company would like to use), and if Celgene agrees, in its sole discretion, the Parties will negotiate and enter into a separate agreement setting forth the terms and conditions under which Company may utilize such Celgene Background IP.

7.3 Rights Retained by the Parties. For the avoidance of doubt, each Party retains all rights under Know-How and Patents Controlled by such Party not expressly granted to the other Party pursuant to this Agreement.

7.4 No Implied Licenses. Except as explicitly set forth in this Agreement, neither Party will be deemed by estoppel, implication or otherwise to have granted to the other Party any license or other right to any intellectual property of such Party.

7.5 Section 365(n) of the Bankruptcy Code. All licenses granted under this Agreement are deemed to be, for purposes of Section 365(n) of the Bankruptcy Code, licenses of rights to "intellectual property" as defined in Section 101 of the Bankruptcy Code. Each Party,

as licensee, may fully exercise all of its rights and elections under the Bankruptcy Code. The Parties further agree that, if a Party elects to retain its rights as a licensee under any Bankruptcy Code, such Party will be entitled to complete access to any technology licensed to it hereunder and all embodiments of such technology. Such embodiments of the technology will be delivered to the licensee Party not later than: (a) the commencement of bankruptcy proceedings against the licensor, upon written request, unless the licensor elects to perform its obligations under this Agreement; or (b) if not delivered under Section 7.5(a), upon the rejection of this Agreement by or on behalf of the licensor, upon written request. Any agreements supplemental hereto will be deemed to be "agreements supplementary to" this Agreement for purposes of Section 365(n) of the Bankruptcy Code. As used herein, "**Bankruptcy Code**" means the U.S. Bankruptcy Code and any foreign equivalent thereto in any country having jurisdiction over a Party or its assets.

7.6 Ownership.

7.6.1 Inventions.

(a) Inventorship of Inventions will be determined by application of U.S. patent law pertaining to inventorship.

(b) Notwithstanding anything to the contrary in this Agreement, each Party will have the right to invoke the America Invents Act Joint Research Agreement exception codified at 35 U.S.C. § 102(c) (the "**JRA Exception**") when exercising its rights under this Agreement, but only with prior written consent of the other Party in its sole discretion. In the event that a Party intends to invoke the JRA Exception, once agreed to by the other Party if required by the preceding sentence, it will notify the other Party and the other Party will cooperate and coordinate its activities with such Party with respect to any filings or other activities in support thereof. The Parties acknowledge and agree that this Agreement is a "joint research agreement" as defined in 35 U.S.C. § 100(h).

7.6.2 Background IP.

(a) Company. As between the Parties, Company will retain all right, title and interest in and to all Company Background IP, and no rights or licenses are granted to Celgene hereunder with respect to any Company Background IP, except, in each case, to the extent that any such rights are licensed or granted to Celgene under this Agreement or any Global License Agreement. Company will ensure that Company Background IP remains unencumbered such that Company has the full rights to grant the rights and licenses to such Company Background IP to Celgene hereunder (and under any Global License Agreement), including the Opt-ins. In the event that there is any Company Background IP that is not owned solely by Company, Company will ensure that such Company Background IP remains unencumbered and that the Person owning such Company Background IP grants appropriate rights and licenses to Company to such Company Background IP, in each case, in order to enable Company to fulfill its obligations hereunder and under any Global License Agreement and to grant the rights and licenses to Celgene hereunder and thereunder (including the rights set forth in Section 4.1 and this Article 7). Company will ensure that no Know-How or Patents that are owned by any Third Party are utilized in the performance of a Collaboration Program unless and until Company has secured sublicenseable rights and licenses from such Third Party pursuant to a written agreement with such Third Party.

(b) Celgene. As between the Parties, Celgene will retain all right, title and interest in and to all Celgene Background IP (including all rights to Prosecute and Maintain, and enforce any such Celgene Background IP), and, no rights or licenses are granted to Company hereunder with respect to any Celgene Background IP, except, in each case, as stated in Section 7.2.

7.6.3 Collaboration IP.

(a) Company Collaboration IP. As between Company and Celgene, Company will solely own all Company Collaboration IP. Company will ensure that all Patents, Know-How and other intellectual property within the Company Collaboration IP remains unencumbered such that Company has the full rights to grant the rights and licenses to the Company Collaboration IP to Celgene hereunder (and under any Global License Agreement), including the Opt-ins. In the event that there is any Company Collaboration IP that is discovered, generated, invented, made, conceived or reduced to practice by any Third Party (or jointly by Company (or its Affiliate) and any Third Party), then Company will ensure that such Third Party assigns or licenses all right, title and interest in and to such Company Collaboration IP to Company in accordance with the Subcontracting Essential Provisions. Company will ensure that no Third Party performs any activities under any Collaboration Program unless and until such Third Party has agreed to the Subcontracting Essential Provisions.

7.6.4 Celgene Collaboration IP. As between Company and Celgene, Celgene shall solely own all Celgene Collaboration IP.

7.6.5 Joint Collaboration IP. Both Parties shall jointly own all Joint Collaboration IP, such that each Party has an undivided [***] interest in such Joint Collaboration IP, with no duty of accounting to the other Party and no requirement to obtain consent from the other Party in connection with any exploitation of such Joint Collaboration IP or licenses granted by either Party to Third Parties with respect to such Joint Collaboration IP.

7.7 Cooperation. Each Party will cause its Affiliates, employees, consultants, sublicensees, agents and contractors to assign to such Party such Person's right, title and interest in and to any and all Collaboration IP, and intellectual property rights therein, and to take such other actions as is necessary to enable such Party to fully effect and perfect the ownership of Collaboration IP, and intellectual property rights therein, as provided for in Section 7.6. Company will also include provisions in its relevant agreements with Third Parties performing activities on its behalf pursuant to this Agreement that effect the intent of this Section 7.7.

7.8 Prosecution and Maintenance of Patents.

7.8.1 Company Patents.

(a) Pre-Opt-in Exercise. Subject to University of Texas Austin's rights under the UT License (with respect to the Kynureninase Program):

(i) Company First Right. Subject to Section 7.8.1(b), Company will have the first right (but not the obligation) to Prosecute and Maintain the Company Background Patents and Company Collaboration Patents; provided, that Company will

be required to, and will, at a minimum, Prosecute and Maintain the Company Background Patents and Company Collaboration Patents in the Primary Patent Countries, to the extent possible under the Paris convention. Company will not be required to Prosecute and Maintain the Company Background Patents and Company Collaboration Patents in Primary Patent Countries where the claimed invention would not be considered patentable subject matter. Company will keep Celgene informed as to material developments with respect to the Prosecution and Maintenance of such Patents including by providing copies of all substantive office actions or any other substantive documents to or from any patent office, including notice of all interferences, reissues, reexaminations, inter partes reviews, post grant proceedings, oppositions or requests for patent term extensions. Company will also provide Celgene with a reasonable opportunity to comment substantively on the Prosecution and Maintenance of such Patents prior to taking material actions (including the filing of initial applications), and will in good faith consider any comments made by and actions recommended by Celgene; provided, however, that Celgene does so consistent with any applicable filing deadlines.

(ii) Celgene Back-Up Right. If Company, in any country, decides not to file a Company Background Patent or Company Collaboration Patent or intends to allow such Patent to lapse or become abandoned without having first filed a substitute, it will notify and consult with Celgene of such decision or intention at least [***] prior to the date upon which the subject matter of such Patent will become unpatentable or such Patent will lapse or become abandoned, and Celgene will thereupon have the right (but not the obligation) to assume the Prosecution and Maintenance thereof at Celgene's expense with counsel of its choice (or, alternatively, Celgene may direct Company to Prosecute and Maintain such Patent in such country, and will reimburse Company for its reasonable out-of-pocket costs in connection therewith). For clarity, the provisions of this Section 7.8.1(a)(ii) will not limit Company's obligations to Prosecute and Maintain the Company Background Patents and Company Collaboration Patents in the Primary Patent Countries as set forth in Section 7.8.1(a)(i).

(b) Post-Opt-in Exercise. On a Collaboration Program-by-Collaboration Program basis, after Celgene's exercise of its Opt-in with respect to such Collaboration Program and the License Effective Date for the applicable Global License Agreement, Prosecution and Maintenance of the Company Background Patents and Company Collaboration Patents licensed under the Global License Agreement applicable to such Collaboration Program will be in accordance with such Global License Agreement. In the event that a given Company Background Patent or Company Collaboration Patent relates to multiple Collaboration Programs, then the provisions of this Section 7.8.1(b) will control over the provisions of Section 7.8.1(a).

7.8.2 Celgene Patents. As between the Parties, Celgene shall have the sole right (but not the obligation) to Prosecute and Maintain all (i) Patents constituting Celgene Background IP and (ii) Celgene Collaboration Patents. For the avoidance of doubt, and notwithstanding anything else herein to the contrary, Celgene shall have the sole right to make any representations to any patent office in any jurisdiction with respect to Celgene Compounds.

7.8.3 Joint Patents.

(a) No Opt-in Exercise. Subject to Section 7.8.3(b), on a Collaboration Program-by-Collaboration Program basis, the provisions of this Section 7.8.3(a) will apply with respect to Joint Collaboration Patents for such Collaboration Program prior to the exercise of Celgene's Opt-in with respect to such Collaboration Program and the License Effective Date for the applicable Global License Agreement or if Celgene does not exercise its Opt-in with respect to such Collaboration Program.

(i) Company First Right. Subject to Section 7.8.3(b), Company will have the first right (but not the obligation) to Prosecute and Maintain the Joint Collaboration Patents; provided, that Company will be required to, and will, at a minimum, Prosecute and Maintain the Joint Collaboration Patents in the Primary Patent Countries. Company will keep Celgene informed as to material developments with respect to the Prosecution and Maintenance of such Patents including by providing copies of all substantive office actions or any other substantive documents to or from any patent office, including notice of all interferences, reissues, reexaminations, inter partes reviews, post grant proceedings, oppositions or requests for patent term extensions. Company will also provide Celgene with a reasonable opportunity to comment substantively on the Prosecution and Maintenance of such Patents prior to taking material actions (including the filing of initial applications), and will in good faith consider any comments made by and actions recommended by Celgene; provided, however, that Celgene does so consistent with any applicable filing deadlines.

(ii) Celgene Back-Up Right. If Company, in any country, decides not to file a Joint Collaboration Patent or intends to allow such Patent to lapse or become abandoned without having first filed a substitute, it will notify and consult with Celgene of such decision or intention at least [***] prior to the date upon which the subject matter of such Patent will become unpatentable or such Patent will lapse or become abandoned, and Celgene will thereupon have the right (but not the obligation) to assume the Prosecution and Maintenance thereof at Celgene's expense with counsel of its choice (or, alternatively, Celgene may direct Company to Prosecute and Maintain such Patent in such country, and will reimburse Company for its reasonable out-of-pocket costs in connection therewith). For clarity, the provisions of this Section 7.8.3(a)(ii) will not limit Company's obligations to Prosecute and Maintain the Joint Collaboration Patents in the Primary Patent Countries as set forth in Section 7.8.1(a)(i).

(b) Subject to Global License Agreement. On a Collaboration Program-by-Collaboration Program basis, after Celgene's exercise of its Opt-in with respect to a particular Collaboration Program and the License Effective Date for the applicable Global License Agreement, Prosecution and Maintenance of the Joint Collaboration Patents licensed under the applicable Global License Agreement will be in accordance with such Global License Agreement. In the event that a given Joint Collaboration Patent relates to multiple Collaboration Programs, then the provisions of this Section 7.8.3(b) will control over the provisions of Section 7.8.3(a).

7.8.4 Cooperation in Prosecution and Maintenance.

(a) Further Assurances. If Celgene is responsible for the Prosecution and Maintenance of a Company Background Patent, Company Collaboration Patent or Joint Collaboration Patent in accordance with this Section 7.8.4(a), Company agrees to make its employees, agents and consultants reasonably available to Celgene (and to Celgene's authorized attorneys, agents or representatives) to enable Celgene to undertake such Prosecution and Maintenance, and will assist in any license registration processes with applicable Governmental Authorities that may be available for the protection of Celgene's interests in this Agreement. In addition, Company will (and will cause its employees, agents and consultants to) provide reasonable assistance to Celgene (and to Celgene's authorized attorneys, agents or representatives) to enable Celgene to undertake such Prosecution and Maintenance, including by executing powers of attorney and other agreements for Celgene to undertake such Prosecution and Maintenance.

(b) Assistance. The Parties will reasonably cooperate with one another, through their respective Patent Liaisons, with respect to the Prosecution and Maintenance of the Company Background Patents, Company Collaboration Patents and Joint Collaboration Patents for which either Party is responsible for Prosecution and Maintenance pursuant to this Section 7.8. At either Party's request, the Parties will cooperate with one another to file and prosecute continuing or divisional Patent applications with respect to Company Background Patents, Company Collaboration Patents and Joint Collaboration Patents, in each case that are primarily applicable to a Collaboration Target or Collaboration Candidate, as applicable.

(c) Costs of Prosecution and Maintenance. Except as otherwise expressly set forth in this Section 7.8, each Party will be responsible for all costs and expenses associated with its Prosecution and Maintenance activities under this Section 7.8 with respect to Company Background Patents and Collaboration Patents for which it is responsible pursuant to Sections 7.8.1, 7.8.2 or 7.8.3, as applicable.

7.9 Enforcement of Patents.

7.9.1 Company Patents

. **(a)** Prior to Exercise of Opt-in. Subject to Section 7.9.1(b), the provisions of this Section 7.9.1(a) will apply with respect to Company Background Patents and Company Collaboration Patents prior to the License Effective Date of a Global License Agreement relating to such Company Background Patents and Company Collaboration Patents.

(i) Notice. If any Party learns of an infringement or threatened infringement by a Third Party of any Company Background Patent or Company Collaboration Patent, or any such Patent is challenged in any action or proceeding, such Party will promptly notify the other Party and will provide such other Party with available evidence of such infringement, and following such notification, the Parties will confer.

(ii) Enforcement. As between the Parties, subject to the remaining provisions of this Section 7.9.1(a), Company will have the sole right, but not the obligation, to institute, prosecute, and control any action or proceeding with respect to any infringement of any Company Background Patent or Company Collaboration Patent, by counsel of its own choice, in Company's own name and under Company's direction and control.

(iii) Consultation. Company will keep Celgene regularly informed of the status and progress of such enforcement efforts. Company will consult with Celgene and will take comments of Celgene into good faith consideration with respect to the infringement, claim construction, or defense of the validity or enforceability of any claim in any Company Background Patent or Company Collaboration Patent.

(iv) Settlement. A settlement or consent judgment or other voluntary final disposition of a suit under this Section 7.9.1(a) may be entered into without the consent of Celgene; provided, however, that any such settlement, consent judgment or other disposition of any action or proceeding under this Section 7.9.1(a) will not, without the prior written consent of Celgene, (i) impose any liability or obligation on Celgene or any of its Affiliates, (ii) include the grant of any license, covenant or other rights to any Third Party that would conflict with or reduce the scope of the rights or licenses (including licenses that would be granted upon exercise of Opt-ins) granted to Celgene hereunder, (iii) conflict with or reduce the scope of the subject matter claimed in any such Patent, or (iv) adversely affect the interest of Celgene in any respect.

(v) Costs and Recoveries. Company will bear all costs incurred in connection with its activities under this Section 7.9.1(a). Any damages or other monetary awards recovered in any action, suit or proceeding brought under this Section 7.9.1(a) to the extent related to any Company Background Patents or Company Collaboration Patents will be shared as follows:

(1) the amount of such recovery actually received will first be applied to costs and expenses incurred by each Party in connection with such action (including, for this purpose, a reasonable allocation of expenses of internal counsel); and

(2) any remaining proceeds will be retained by Company.

(b) Post-Opt-in Exercise. On a Collaboration Program-by-Collaboration Program basis and after Celgene's exercise of its Opt-in with respect to such Collaboration Program and the License Effective Date for the applicable Global License Agreement, enforcement of the Company Background Patents and Company Collaboration Patents licensed under the applicable Global License Agreement will be in accordance with such Global License Agreement. In the event that a given Company Background Patent or Company Collaboration Patent relates to multiple Collaboration Programs, then the provisions of this Section 7.9.1(b) will control over the provisions of Section7.9.1(a).

7.9.2 Celgene Patents. As between the Parties, Celgene shall have the sole right, but not the obligation, to institute, prosecute, and control any action or proceeding with respect to any infringement of any (i) Patents constituting Celgene Background IP and (ii) Celgene Collaboration Patents, by counsel of its own choice, in Celgene's own name and under Celgene's direction and control. For the avoidance of doubt, and notwithstanding anything to the contrary herein, Celgene shall have the sole right to make any representations to any administrative body, court or other judicial body in any jurisdiction with respect to Celgene Compounds.

7.10 Joint Patents.

7.10.1 Not Subject to Global License Agreement. Subject to Section 7.10.2, on a Collaboration Program-by-Collaboration Program basis, the provisions of this Section 7.10.1 will apply with respect to Joint Collaboration Patents arising out of such Collaboration Program and not subject to a Global License Agreement.

(a) Notice. If any Party learns of an infringement or threatened infringement by a Third Party of any Joint Collaboration Patent, or any such Patent is challenged in any action or proceeding, such Party will promptly notify the other Party and will provide such other Party with available evidence of such infringement, and following such notification, the Parties will confer.

(b) Enforcement. As between the Parties and subject to Section 7.10.2: (i) promptly after notice under Section 7.10.1(a) is received with respect to a Joint Collaboration Patent, the Parties shall meet to discuss whether they wish to enforce such Patent; and (ii) absent agreement within [***] and notwithstanding anything to the contrary herein, but subject to the Laws of the respective countries in which enforcement would take place, each Party shall have the right to enforce such Patent.

(c) Consultation. Each Party will keep the other Party regularly informed of the status and progress of such enforcement efforts. Each Party will consult with the other Party and will take comments of the other Party into good faith consideration with respect to the infringement, claim construction, or defense of the validity or enforceability of any claim in any Joint Collaboration Patent.

(d) Settlement. A settlement or consent judgment or other voluntary final disposition of a suit under this Section 7.10.1 may be entered into by a Party without the consent of the other Party; provided, however, that any such settlement, consent judgment or other disposition of any action or proceeding under this Section 7.10.1 will not, without the prior written consent of the other Party, (i) impose any liability or obligation on the other Party or any of its Affiliates, (ii) include the grant of any license, covenant or other rights to any Third Party that would conflict with or reduce the scope of the rights or licenses (including, with respect to Celgene, any Opt-ins) granted to the other Party hereunder, (iii) conflict with or reduce the scope of the subject matter claimed in any such Patent, or (iv) adversely affect the interest of the other Party in any respect.

(e) Costs and Recoveries. Each Party will bear its own costs incurred in connection with its activities under this Section 7.10.1. Any damages or other monetary awards recovered in any action, suit or proceeding brought under this Section 7.10.1 to the extent related to any Joint Collaboration Patents will be shared as follows:

(i) the amount of such recovery actually received will first be applied to costs and expenses incurred by each Party in connection with such action (including, for this purpose, a reasonable allocation of expenses of internal counsel); and

(ii) any remaining proceeds will be allocated between the Parties on a pro rata basis taking into consideration the relative economic losses suffered by each Party.

7.10.2 Post-Opt-in Exercise. On a Collaboration Program-by-Collaboration Program basis and after Celgene's exercise of its Opt-in with respect to such Collaboration Program and the License Effective Date for the applicable Global License Agreement, enforcement of the Joint Collaboration Patents licensed under the applicable Global License Agreement will be in accordance with such Global License Agreement. In the event that a given Joint Collaboration Patent relates to multiple Collaboration Programs, then the provisions of this Section 7.10.2 will control over the provisions of Section 7.10.1.

7.11 Defense of Claims Brought by Third Parties. If a Party becomes aware of any actual or potential claim that the Development, Manufacture or Commercialization of any Collaboration Target, Collaboration Candidate or Collaboration Product by or on behalf of either Party pursuant to the conduct of a Collaboration Program under this Agreement infringes the intellectual property rights of any Third Party, such Party will promptly notify the other Party. In any such instance, the Parties will as soon as practicable thereafter meet (which may be through the JSC) to discuss in good faith the best response to such notice.

7.12 Common Interest Disclosures. With regard to any information or opinions disclosed in connection with the delivery of a Drug Candidate Data Package or pursuant to Section 7.8, 7.9, or 7.11 by one Party to the other Party regarding evaluation of Company IP or Joint Collaboration IP, Prosecution and Maintenance of Company IP or Joint Collaboration IP, or enforcement of intellectual property or technology by or against Third Parties, Company and Celgene agree that they have a common legal interest in determining the ownership, scope, validity or enforcement of Company IP and Joint Collaboration IP, and whether, and to what extent, Third Party intellectual property rights may affect the conduct of the Development, Manufacture and Commercialization of any Collaboration Target, Collaboration Candidate or Collaboration Product, and have a further common legal interest in defending against any actual or prospective Third Party claims based on allegations of misuse or infringement of intellectual property rights relating to the Development, Manufacture or Commercialization of any Collaboration Target, Collaboration Candidate or Collaboration Product. Accordingly, the Parties agree that all such information and materials obtained by the Parties from each other will be used solely for purposes of the Parties' common legal interests with respect to the conduct of this Agreement. All such information and materials will be treated as protected by the attorney-client privilege, the work product privilege, and any other privilege or immunity that may otherwise be applicable. By sharing any such information and materials, neither Party intends to waive or limit any privilege or immunity that may apply to the shared information and materials. Neither Party will have the authority to waive any privilege or immunity on behalf of the other Party without such other Party's prior written consent, nor will the waiver of privilege or immunity resulting from the conduct of one Party be deemed to apply against the other Party.

7.13 Celgene Activities. Notwithstanding anything to the contrary in this Agreement, or any Global License Agreement, in no event may Company Prosecute and Maintain, or enforce, by virtue of this Agreement or any Global License Agreement any Celgene Background IP or, subject to the express rights set forth in Article 7, Celgene Collaboration IP.

ARTICLE 8
CONFIDENTIALITY

8.1 Nondisclosure. Each Party agrees that a Party (the "**Receiving Party**") receiving Confidential Information of the other Party (the "**Disclosing Party**") will (a) maintain in confidence such Confidential Information using not less than the efforts such Receiving Party uses to maintain in confidence its own proprietary information of similar kind and value, but in no event less than a reasonable degree of efforts, (b) not disclose such Confidential Information to any Third Party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted pursuant to this Article 8, and (c) not use such Confidential Information for any purpose except those expressly permitted by this Agreement or any Global License Agreement. The obligations of confidentiality, non-disclosure and non-use under this Section 8.1 will be in full force and effect during the Collaboration Term and for a period of [***] thereafter. The Receiving Party will, at the Disclosing Party's option, return all copies of or destroy (and certify such destruction in writing) the Confidential Information of the Disclosing Party disclosed or transferred to it by the other Party pursuant to this Agreement, within [***] of the Disclosing Party's request or the termination or expiration of this Agreement; provided, however, that a Party may retain (i) Confidential Information of the other Party to exercise rights and licenses which expressly survive such termination or expiration pursuant to this Agreement, and (ii) one (1) copy of all other Confidential Information in archives solely for the purpose of establishing the contents thereof; provided such copy shall remain subject to the confidentiality and non-use obligations hereunder. For the avoidance of doubt, (A) Materials and Company IP, to the extent constituting Confidential Information, shall be deemed to be the Confidential Information of Company and (B) Joint Collaboration IP, to the extent constituting Confidential Information, shall be deemed to be the Confidential Information of each Party.

8.2 Compound-Specific Confidential Information. Notwithstanding anything to the contrary contained herein, the Parties agree and acknowledge that solely during the term of this Agreement, any Collaboration Compound-Specific IP will be deemed to be Confidential Information of both Parties (without regard to Section 8.3), and each Party will be deemed to be the Disclosing Party with respect to the Collaboration Compound-Specific IP. As used herein, (a) the term "**Collaboration Compound-Specific IP**" means, with respect to a given Collaboration Program, (i) the Collaboration Target under such Collaboration Program, (ii) the Collaboration Candidates (including the structures thereof) under such Collaboration Program and the Collaboration Products under such Collaboration Program, and (iii) any other Collaboration Know-How that specifically relates to such Collaboration Target, Collaboration Candidate or Collaboration Product (including Biomarkers and research tools that specifically relate to such Collaboration Target, Collaboration Candidates or Collaboration Products); and (b) the term "Non-Collaboration Compound-Specific IP" means all Collaboration Know-How other than Collaboration Compound-Specific IP.

8.3 Exceptions.

8.3.1 General. The obligations in Section 8.1 will not apply with respect to any portion of the Confidential Information of the Disclosing Party that the Receiving Party can demonstrate by competent written evidence:

(a) was known to the Receiving Party or any of its Affiliates, without any obligation to keep it confidential or any restriction on its use, prior to disclosure by or on behalf of the Disclosing Party;

(b) is subsequently disclosed to the Receiving Party or any of its Affiliates by a Third Party lawfully in possession thereof and without any obligation to the Disclosing Party to keep it confidential or any restriction on its use;

(c) is published by a Third Party (or by a Party in accordance with Section 8.7) or otherwise becomes publicly available or enters the public domain, either before or after it is disclosed to the Receiving Party, without any breach by the Receiving Party of its obligations hereunder; or

(d) is independently developed by or for the Receiving Party or its Affiliates without reference to or reliance upon the Disclosing Party's Confidential Information.

Any combination of features or disclosures will not be deemed to fall within the foregoing exclusions merely because individual features are published or available to the general public or in the rightful possession of the Receiving Party unless the combination itself and principle of operation are published or available to the general public or in the rightful possession of the Receiving Party, and any individual feature or disclosure will not be deemed to fall within the foregoing exclusions merely because a broader or related combination of such feature or disclosure is published or available to the general public or in the rightful possession of the Receiving Party unless the individual feature or disclosure itself are published or available to the general public or in the rightful possession of the Receiving Party.

8.3.2 Residual Information. Notwithstanding anything to the contrary in this Agreement, the Receiving Party, may use any learning, skills, ideas, concepts, techniques, know-how and information, including general chemistry methodologies and general SAR (structure-activity relationship) concepts, retained in intangible form in the unaided memory of the Receiving Party's (or its Affiliate's) directors, employees, contractors, advisors, agents and other personnel who had access to the other Party's Confidential Information for any purpose. For clarity, the foregoing is not intended to be a license under any Patents owned or controlled by the Disclosing Party, and no such license shall be deemed to be granted to the Receiving Party.

8.4 Authorized Disclosure.

8.4.1 Disclosure. Notwithstanding Section 8.1, the Receiving Party may disclose Confidential Information belonging to the Disclosing Party in the following instances:

(a) subject to Section 8.6, to comply with Laws (including the rules and regulations of the U.S. Securities and Exchange Commission ("**SEC**") or any national securities exchange) or with judicial process (including prosecution or defense of litigation), if, in the reasonable opinion of the Receiving Party's counsel, such disclosure is necessary for such compliance or for such judicial process (including prosecution or defense of litigation);

(b) to governmental or other regulatory agencies to the extent reasonably necessary to carry out its responsibilities or exercise its rights under this Agreement, including to Prosecute and Maintain Patents or to gain or maintain approval to conduct Clinical Trials under this Agreement, in each case, in accordance with this Agreement; provided, that reasonable steps are taken to ensure confidential treatment of such Confidential Information (if available);

(c) to any of its officers, employees, consultants, agents, Affiliates, sublicensees or subcontractors to the extent reasonably necessary to carry out its responsibilities or exercise its rights under this Agreement (including, in the case of Celgene, the exercise of the rights and license (including the evaluation of Opt-ins) granted to Celgene hereunder and in the case of either Party, Prosecution and Maintenance of Patents in accordance with Section 7.8); provided, that each such disclosee is bound by written confidentiality non-disclosure and non-use obligations no less restrictive than those set forth in this Article 8 to maintain the confidentiality thereof and not to use such Confidential Information except as expressly permitted by this Agreement; provided further, however, that, in each of the above situations in this Section 8.4.1(c), the Receiving Party will remain responsible for any failure by any Person who receives Confidential Information pursuant to this Section 8.4.1(c) to treat such Confidential Information as required under this Article 8; and

(d) in the case of any disclosure of this Agreement or the terms hereof, solely on a "need to know basis," to (i) advisors (including attorneys and accountants) in connection with activities hereunder, or (ii) subject to Section 8.4.1(e), actual or bona fide potential acquirers, investment bankers, investors, lenders or other financial partners and (iii) in each case of (i) and (ii), such Third Party's respective directors, employees, contractors and agents; provided, that in all cases (i) and (ii), prior to any such disclosure, each disclosee must be bound by written obligations of confidentiality, non-disclosure and non-use no less restrictive than the obligations set forth in this Article 8; provided, however, that in the case of prospective investment bankers, investors, lenders, or other financial partners, the term of confidentiality may be shortened to [***] from the date of disclosure and in the case of legal advisors, no written agreement will be required, which for the avoidance of doubt, will not permit use of such Confidential Information for any purpose except those permitted by this Agreement; provided, further, that, in each of the above situations in this Section 8.4.1(d), the Receiving Party will remain responsible for any failure by any Person who receives Confidential Information pursuant to this Section 8.4.1(d) to treat such Confidential Information as required under this Article 8; and

(e) in the case of any disclosure of a copy of or the terms of this Agreement to any bona fide actual or potential acquirer, or prospective investment banker, investor, lender or other financial partner, such disclosure will solely be in the form of a redacted version of this Agreement, which version will be agreed upon by the Parties in good faith, it being understood and agreed that only after negotiations with any such Third Party have progressed so that such Party reasonably and in good faith believes it is in the final (or nearly final) round of negotiations with such Third Party regarding execution of a definitive agreement with such Third Party with respect to the proposed transaction, only then may such Party provide an unredacted version of this Agreement to such Third Party.

8.4.2 Terms of Disclosure. If and whenever any Confidential Information is disclosed in accordance with this Section 8.4, such disclosure will not cause any such information to cease to be Confidential Information except to the extent that such disclosure results in a public disclosure of such information (other than by breach of this Agreement). Where reasonably possible and subject to Section 8.6, the Receiving Party will notify the Disclosing Party of the Receiving Party's intent to make any disclosures pursuant to Section 8.4.1(a) sufficiently prior to making such disclosure so as to allow the Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information, and the Receiving Party will provide reasonable assistance to the Disclosing Party with respect thereto; provided, that, in such event, the Receiving Party will use reasonable measures to ensure confidential treatment of such information and will only disclose such Confidential Information of the Disclosing Party as is necessary for the purposes of Section 8.4.1(a), as applicable.

8.4.3 Collaboration Compound-Specific IP. Notwithstanding the provisions of Section 8.4.1, neither Party will disclose the Collaboration Compound-Specific IP without the prior written consent of the other Party, other than pursuant to Section 8.4.1(a) or Section 8.4.1(b).

8.5 Terms of this Agreement. The Parties agree that this Agreement and all of the respective terms hereof will be deemed to be Confidential Information of both Company and Celgene, and each Party agrees not to disclose any of them without the prior written consent of the other Party, except that each Party may disclose any of them in accordance with the procedures of Section 8.4 (and the provisions related thereto, including, to the extent applicable, the provisions of Section 8.6).

8.6 Securities Filings and other Disclosures Required by Law. Each Party acknowledges and agrees that the other Party may submit this Agreement to the SEC or any national securities exchange in any jurisdiction (collectively, the "**Securities Regulators**"), or to other Persons as may be required by Law, and if a Party does submit this Agreement to any Securities Regulators, or other Persons as may be required by Law, such Party agrees to consult with the other Party with respect to the preparation and submission of a confidential treatment request for this Agreement. Notwithstanding the foregoing, if a Party or its counsel concludes it is required by Law or any Securities Regulator to make a disclosure of the terms of this Agreement in a filing or other submission as required by Law or any Securities Regulator, and (a) such Party has provided copies of the disclosure to the other Party reasonably in advance of such filing or other disclosure under the circumstances, (b) such Party has promptly notified the other Party in writing of such requirement and any respective timing constraints, and (c) such Party has given the other Party a reasonable time under the circumstances from the date of notice by such Party of the required disclosure to comment upon and request confidential treatment for such disclosure, then such Party will have the right to make such disclosure at the time and in the manner reasonably determined by its counsel to be required by Law or any Securities Regulator. Notwithstanding the foregoing, it is hereby understood and agreed that if a Party seeks to make a disclosure as required by Law or any Securities Regulator as set forth in this Section 8.6, and the other Party provides comments within the respective time periods or constraints specified herein or within the respective notice, the Party seeking to make such disclosure or its counsel, as the case may be, will in good faith consider incorporating such comments.

8.7 Publicity.

8.7.1 Press Release. The Parties have agreed to issue a mutually agreed upon press release promptly after execution of this Agreement, a copy of which is attached hereto as Schedule 8.7.1. In all other cases, subject to this Section 8.7, each Party agrees not to, and agrees to cause their Affiliates not to, issue any press release or other public statement disclosing this Agreement, the activities hereunder, or the transactions contemplated hereby; provided, that either Party will be authorized to make any disclosure that is required by Law (including the U.S. Securities Act of 1933, as amended, and the U.S. Securities Exchange Act of 1934, as amended), the rules of any Securities Regulator, or judicial process, subject to and in accordance with Sections 8.4 and 8.6, as applicable.

8.7.2 Additional Restrictions on Disclosure. Without limiting any other restrictions on disclosure as set forth in this Article 8, on a Collaboration Program-by-Collaboration Program basis, with respect to any press release or other public statement proposed to be made by Company prior to Celgene's exercise of the Opt-in for such Collaboration Program, if such press release or public statement discloses any information with respect to the Development, Manufacture or Commercialization of any Collaboration Targets, Collaboration Candidates or Collaboration Products that are the subject of the applicable Collaboration Program, including any information related to Clinical Trials or Regulatory Approvals with respect thereto, in each case, such press release or other public statement may not be issued without Celgene's prior written consent, except for such disclosures by Company as required by Law (solely and to the extent Company's counsel determines such disclosure is required by Law); provided, that in such case Company will use reasonable efforts to afford Celgene at least [***] to review any such disclosure and any comments made by Celgene within such time period will be incorporated in good faith. In the event Celgene proposes that Company use specific wording or language with respect thereto, Company will use reasonable efforts to incorporate such wording or language.

8.7.3 Previously Issued Public Statements. The contents of any press release or other public statement that has been reviewed and approved by a reviewing Party may be re-released by such reviewing Party or publishing Party without a requirement for re-approval; provided, however, that such re-release does not substantially change or expand the previously issued content.

8.8 Permitted Publications.

8.8.1 Publication. During the Collaboration Term, in the event Company or its Affiliates desires to publish or present any information with respect to the results of the Collaboration or a given Collaboration Program, including with respect to any Collaboration Target, Collaboration Candidate or Collaboration Product, Company will provide Celgene with a copy of such proposed publication or presentation no less than [***] prior to its intended submission for publication or public disclosure. Celgene will respond in writing promptly and in no event later than [***] after receipt of the proposed material, with one or more of the following:

(a) comments on the proposed material, which Company will consider in good faith;

(b) a specific statement of concern, based upon the need to seek patent protection or to block publication or public disclosure if Celgene reasonably determines that the proposed disclosure is intellectual property that should be maintained as a trade secret to protect the Collaboration or any Collaboration Target, Collaboration Candidate or Collaboration Product that is the subject of such Collaboration Program, in which event Company agrees not to submit such publication or make such presentation that contains such information until Celgene is given a reasonable period of time, and in no event less than [***], to seek patent protection for any Collaboration Know-How (in accordance with Section 7.8) in such publication or presentation which it believes is patentable or to resolve any other issues; or

(c) an identification of the other Party's Confidential Information that is contained in the material reviewed, which Company will remove, if requested by the Celgene.

8.8.2 Re-Publication; Re-Presentation. The contents of any publication or presentation that has been reviewed and approved by Celgene may be re-released by Celgene or Company without a requirement for re-approval; provided, however, that such re-release does not substantially change or expand the previously issued content.

8.9 Use of Names. Except as otherwise expressly set forth herein, no Party (or its respective Affiliates) will use the name, trademark, trade name or logo of the other Party, its Affiliates or its or their respective employee(s) for any purposes, including in any publicity, promotion, news release or other public disclosure relating to this Agreement or its subject matter, without the prior written permission of the other Party, except, in each case, as may be required by Law, including the rules of any securities exchange or market on which a Party's (or its Affiliate's) securities are listed or traded.

8.10 Relationship to Existing Confidentiality Agreement. This Agreement supersedes that certain Mutual Confidentiality Agreement entered into between Company and Celgene, effective [***] (the "**Existing Confidentiality Agreement**"); provided, that all "Confidential Information" disclosed by the "Disclosing Party" thereunder will be deemed Confidential Information of the Disclosing Party hereunder and will be subject to the terms and conditions of this Agreement and the "Receiving Party" will be bound by and obligated to comply with such terms and conditions as if they were the Receiving Party hereunder. The foregoing will not be interpreted as a waiver of any remedies available to the "Disclosing Party" as a result of any breach, prior to the Collaboration Effective Date, by the "Receiving Party", of its obligations pursuant to the Existing Confidentiality Agreement.

8.11 Global License Agreement. Notwithstanding the foregoing provisions of this Article 8, if a Global License Agreement is entered into with respect to a given Collaboration Program, then the provisions of such Global License Agreement will control with respect to Confidential Information related to such Collaboration Program in lieu of this Article 8; provided, that the terms of this Article 8 will in any event control with respect to any dispute, controversy or claim relating to Confidential Information disclosed pursuant to this Agreement.

ARTICLE 9
REPRESENTATIONS AND WARRANTIES; COVENANTS

9.1 Representations and Warranties of Both Parties. Each Party hereby represents and warrants to the other Party, as of the Collaboration Effective Date, that:

(a) such Party is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation and has full corporate power and authority to enter into this Agreement, and to carry out the provisions hereof;

(b) such Party has taken all necessary corporate action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder;

(c) this Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid, binding obligation, enforceable against it in accordance with its terms, except to the extent that enforcement of the rights and remedies created hereby is subject to (i) bankruptcy, insolvency, reorganization, moratorium and other similar laws of general application affecting the rights and remedies of creditors, or (ii) laws governing specific performance, injunctive relief and other equitable remedies;

(d) the execution, delivery and performance of this Agreement by such Party does not conflict with any agreement or any provision thereof, or any instrument or understanding, oral or written, to which such Party (or any of its Affiliates) is a party or by which such Party (or any of its Affiliates) is bound, nor violate any Law of any Governmental Authority having jurisdiction over such Party; and

(e) it has obtained all necessary consents, approvals and authorizations of all Governmental Authorities and any other Person required to be obtained by it as of the Collaboration Effective Date, as applicable, in connection with the execution, delivery and performance of this Agreement, except (i) as may be required to conduct Clinical Trials or to seek or obtain Regulatory Approvals or applicable Regulatory Materials, or (ii) as set forth in Section 4.4.

9.2 Representations and Warranties of Company. Company hereby represents and warrants to Celgene, as of the Collaboration Effective Date, that:

(a) Schedule 1.28 contains a complete and accurate list of all Patents owned or Controlled (by license or otherwise) by Company or its Affiliates as of the Collaboration Effective Date that are included in the Company Background Patents as of the Collaboration Effective Date and, except as set forth on Schedule 1.28, Company is the sole owner of such Patents. To Company's Knowledge, except for the Company Background Know-How and Company Background Patents, Company and its Affiliates do not own or control (by license or otherwise) any Know-How or Patent that is necessary or, to Company's reasonable belief, reasonably useful to Develop, Manufacture or Commercialize any Compounds;

(b) all issued Patents within the Company Background Patents are in full force and effect, and, to Company's Knowledge, the issued Patents within the Company Background Patents are not invalid or unenforceable, in whole or in part. All Company Background Patents have been diligently Prosecuted and Maintained in accordance with all Laws in the countries in which Patents have been filed, including that all applicable fees due prior to the Collaboration Effective Date with respect thereto having been paid. Company has not received any written claims from a Third Party that any of the Company Background IP is invalid or unenforceable;

(c) the inventors of the inventions claimed in the Company Background Patents owned by Company, and to the Knowledge of Company, the inventors of the inventions claimed in the Company Background Patents licensed to Company, are properly named in such Patents. Company has obtained (or will obtain prior to their involvement in a Collaboration Program) from all Company employees and consultants who will or may be involved in the creation or development of any portion of the Company IP or who will or may be involved in activities under a Collaboration Program, written present assignments of any Inventions created or developed by such employees or consultants to Company and has complied (or will comply, as applicable) with all applicable procedures relating to such assignments under Law;

(d) Except for the agreements set forth on Schedule 9.2(d), neither Company nor any of its Affiliates has entered into any agreement under which Company or any of its Affiliates (i) has obtained a license or sublicense of rights from a Third Party to Develop, Manufacture, or Commercialize any Collaboration Target, or to any Compounds (or any products constituting, incorporating, comprising or containing any such Compound) or to research, develop, manufacture or commercialize any such Collaboration Target, Compounds or products (other than the UT License, licenses to research tools, and licenses granted by subcontractors to allow Company to use deliverables generated by such subcontractors), or (ii) has granted a license, sublicense, option or right to a Third Party that remains in effect as of the Collaboration Effective Date to Develop, Manufacture or Commercialize any Collaboration Target or Compounds (or any products constituting, incorporating, comprising or containing any such Compound) (other than licenses granted to subcontractors performing Development, Manufacturing or Commercialization activities on behalf of Company or rights retained by University of Texas Austin under the UT License);

(e) Company has taken commercially reasonable measures to protect its ownership of, or rights in, all Company IP and has not made any of its trade secrets or other material technical information that it regards as confidential or proprietary available to any other Person except pursuant to written agreements requiring such Person to maintain the confidentiality of such information or to attorneys or advisors who otherwise have a legal or ethical obligation to maintain the confidentiality of such information;

(f) neither Company nor any of its Affiliates owns or otherwise controls (through license or otherwise) any Encumbered Compounds Directed to a Collaboration Target;

(g) other than payments owed under the UT License or payments to service providers for services rendered (including sponsored research performed by academic collaborators) in connection with Company's performance of the Collaboration Programs or its other obligations hereunder, neither Company nor any of its Affiliates are or will be, pursuant to agreements existing on the Effective Date, subject to any payment obligations to Third Parties as a result of the execution or performance of this Agreement or the transactions contemplated hereby;

(h) Company has all rights, authorizations and consents (other than government consents as set forth in Section 4.4) necessary to grant all rights and licenses it purports to grant to Celgene with respect to the Company IP (including the Opt-ins) under this Agreement or that would be granted under any Global License Agreement;

(i) neither Company nor any of its Affiliates has granted any right or license to any Third Party relating to any of the Company IP, or any Collaboration Target or Compound (or any products constituting, incorporating, comprising or containing any such Compound) that would conflict with or limit the scope of any of the rights or licenses granted to Celgene hereunder (including the Opt-ins) or that would be granted under any Global License Agreement;

(j) neither Company nor any of its Affiliates has granted any mortgage, pledge, claim, security interest, encumbrance, lien or other charge of any kind on the Company IP, and the Company IP is free and clear of all mortgages, pledges, claims, security interests, encumbrances, liens and other charges of any kind;

(k) neither Company nor its Affiliates has received any written notice from a Third Party claiming that any Patent or Know-How (including any trade secret right) owned or controlled by a Third Party would be infringed or misappropriated by the Development, Manufacture or Commercialization of any Collaboration Target, Compound or product constituting, incorporating, comprising or containing any Compound;

(l) to Company's Knowledge, the Development, Manufacture, or Commercialization of any Collaboration Target, Compound or product constituting, incorporating, comprising or containing any such Compound, does not infringe, misappropriate or otherwise violate any intellectual property or proprietary right of any Person; provided, however, that the foregoing shall not be interpreted as a representation regarding (i) any target other than a Collaboration Target, (ii) any active pharmaceutical ingredient other than a Compound directed towards a Collaboration Target or Compound; or (iii) any drug delivery device or diagnostic product;

(m) there are no claims, judgments, settlements, litigations, suits, actions, disputes, arbitration, judicial or legal, administrative or other proceedings pending or, to Company's Knowledge, threatened against Company or any of its Affiliates, nor to Company's Knowledge are there any governmental investigations into Company, in each case that would be reasonably expected to adversely affect or restrict the ability of Company to consummate or perform the transactions contemplated under this Agreement (or pursuant to a Global License Agreement), or that would affect the Company IP, or Company's Control thereof, or any Collaboration Target or Compounds or products constituting, incorporating, comprising or containing any such Compounds;

(n) neither Company nor any of its Affiliates has issued a written claim against a Third Party alleging that a Third Party is infringing or has infringed or misappropriated any Company IP, and, to Company's Knowledge, the Company IP is not being infringed or misappropriated by any Third Party;

(o) all Development and Manufacturing activities performed by or on behalf of Company with respect to any Collaboration Target or Compounds or products constituting, incorporating, comprising or containing any such Compound, have been performed in compliance with Law (including GCP, GLP and GMP, as applicable);

(p) Company (and its Affiliates) has not employed, engaged as a consultant, or otherwise knowingly used the services in any capacity, of any Person suspended, proposed for debarment or debarred under United States law, including under 21 U.S.C. 335a or any foreign equivalent thereof;

(q) neither Company nor any of its Affiliates has obtained, or filed, any INDs, MAAs or Regulatory Approvals or any other form of regulatory application for approval of Clinical Trials, marketing or other purpose, for any Compound or products constituting, incorporating, comprising or containing any such Compound;

(r) to Company's Knowledge, all information and data provided by or on behalf of Company to Celgene on or before the Collaboration Effective Date in contemplation of this Agreement or the transactions contemplated hereby was and is true and accurate and complete in all material respects, and Company has not failed to disclose (or cause to be disclosed), any material information or data that could reasonably be expected to cause the information and data that has been disclosed to be misleading in any material respect; and

(s) Schedule 9.2(s) contains a complete and accurate list of all Encumbered Compounds.

9.3 Covenants.

9.3.1 Mutual Covenants. Each Party hereby covenants to the other Party that:

(a) all employees of such Party or its Affiliates or Third Party subcontractors working under this Agreement will be under appropriate confidentiality provisions at least as protective as those contained in this Agreement; and

(b) such Party and its Affiliates will perform its activities pursuant to this Agreement in compliance (and will ensure compliance by any of its subcontractors) with all Laws, including GCP, GLP and GMP, as applicable.

9.3.2 Company Covenants. Company hereby covenants to Celgene that:

(a) Company will ensure that there are no mortgages, pledges, claims, security interests, encumbrances, liens or other charges of any kind granted on the Company IP, and that the Company IP remains free and clear of any mortgages, pledges, claims, security interests, encumbrances, liens and other charges of any kind;

(b) Company will ensure that all employees of Company or its Affiliates or Third Party subcontractors working under this Agreement will be under the obligation to presently assign all right, title and interest in and to their Inventions (including all Collaboration IP), whether or not patentable, to Company as the sole owner thereof, or alternatively, in the case of Third Party subcontractors, such Third Party subcontractors will have agreed to the Subcontracting Essential Provisions;

(c) neither Company nor any of its Affiliates will grant any right or license to any Third Party relating to any of the intellectual property rights it owns or controls (including the Company IP), or otherwise with respect to any Collaboration Targets, Collaboration Candidates or Collaboration Products, which conflict with any of the rights or licenses (including the Opt-ins) granted to Celgene hereunder or to be granted under any Global License Agreement;

(d) if Company or any of its Affiliates Controls any Patent or Know-How (other than Collaboration IP or, in the case of a Change of Control of Company, any Patent or Know-How Controlled by the Acquiring Entity or its Affiliates immediately prior to such Change of Control) during the term of this Agreement that is necessary or reasonably useful for the Development, Manufacture or Commercialization of any Collaboration Targets, Collaboration Candidates or Collaboration Products in the manner contemplated in the Global License Agreements, Company will ensure that the applicable license or acquisition agreement permits Company to include such Patents and Know-How as Company Background IP hereunder;

(e) with respect to any agreement between Company (or its Affiliate) and any Third Party pursuant to which such Third Party has licensed (or granted other rights) to Company (or its Affiliate) any Company IP, (i) Company will not terminate such agreement, (ii) Company will (and will cause its Affiliates to) satisfy all of its (and their) obligations under such agreement, including all payment obligations, and Company will not (and will cause its Affiliates not to) breach or default under any such agreement (and Company will provide written notice to Celgene immediately if it or any of its Affiliates commits any breach or default under any such agreement), (iii) Company will not (and will cause its Affiliates not to) assign or otherwise transfer any such agreement (except to a successor to which this Agreement is assigned pursuant to Section 13.4.3), (iv) Company (A) will not (and will cause its Affiliates not to) amend or modify any such agreement in any manner that could reasonably be expected to be materially adverse to Celgene or to the rights of Celgene under this Agreement (including the Opt-ins), and (B) will provide Celgene with a copy of any amendment or modification to any such agreement promptly after execution thereof;

(f) to promptly notify Celgene in the event that there are any claims, judgments, settlements, litigations, suits, actions, disputes, arbitration (judicial or legal), administrative or other proceedings or governmental investigations pending or, to Company's Knowledge, threatened against Company or any of its Affiliates which would be reasonably expected to adversely affect or restrict the ability of Company to consummate or perform the transactions contemplated under this Agreement (or pursuant to a Global License Agreement).

(g) Company shall maintain adequate policies, procedures and processes to ensure compliance with all Laws during the Collaboration Term.

(h) as of the Collaboration Effective Date and through the date Celgene exercises its Opt-in for a given Collaboration Program, there will be no rights, licenses, covenants or encumbrances granted by Company (or any of its Affiliates) with respect to the Company IP that could reasonably be expected to conflict with any of the rights granted to Celgene hereunder (or under the applicable Global License Agreement) or that would otherwise restrict Celgene's ability to Manufacture, Develop and Commercialize the applicable Collaboration Targets, Collaboration Candidates or Collaboration Products in the manner contemplated in Global License Agreements; and

(i) as of the date Celgene exercises its Opt-in for a given Collaboration Program, Company will have all rights, authorizations and consents necessary to grant Celgene all rights described in this Agreement and in the applicable Global License Agreement and to fulfill all of its obligations as set forth herein and therein.

9.4 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED (AND EACH PARTY HEREBY EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES NOT EXPRESSLY PROVIDED IN THIS AGREEMENT), INCLUDING WITH RESPECT TO ANY PATENTS OR KNOW-HOW, OR MATERIALS, INCLUDING WARRANTIES OF VALIDITY OR ENFORCEABILITY OF ANY PATENTS, TITLE, QUALITY, COMPLETENESS, ACCURACY, MERCHANTABILITY, FITNESS FOR A PARTICULAR USE OR PURPOSE, PERFORMANCE, AND NONINFRINGEMENT OF ANY THIRD PARTY PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS.

ARTICLE 10
INDEMNIFICATION; INSURANCE

10.1 Indemnification by Celgene. Celgene will indemnify, defend and hold harmless Company, its Affiliates and its and their respective directors, officers, employees, agents, successors and assigns (collectively, the "**Company Indemnitees**"), from and against any and all Third Party Damages to the extent arising out of or relating to, directly or indirectly, any Third Party Claim based upon:

(a) the gross negligence or willful misconduct of Celgene or its Affiliates or its or their respective directors, officers, employees or agents, in connection with the performance of Celgene's obligations under this Agreement; or

(b) any material breach by Celgene of any of its representations, warranties, covenants, agreements or obligations under this Agreement;

provided, however, that with respect to each of clauses (a)-(b) above, such indemnity will not apply to the extent Company has an indemnification obligation pursuant to Section 10.2 for such Third Party Damages.

10.2 Indemnification by Company. Company will indemnify, defend and hold harmless Celgene, its Affiliates and its and their respective directors, officers, employees, agents, successors and assigns (collectively, the "**Celgene Indemnitees**"), from and against any and all Third Party Damages to the extent arising out of or relating to, directly or indirectly, any Third Party Claim based upon:

(a) the gross negligence or willful misconduct of Company or its Affiliates or its or their respective directors, officers, employees or agents, in connection with the performance of Company's obligations under this Agreement;

(b) any material breach by Company of any of its representations, warranties, covenants, agreements or obligations under this Agreement; or

(c) the Development or Manufacture by or on behalf of Company or its Affiliates of any Collaboration Target, Collaboration Candidate or Collaboration Product under this Agreement, including any claim for personal injury, property damage other damage or death arising out of the foregoing activities described in this Section 10.2(c);

provided, however, that with respect to each of clauses (a)-(c) above, such indemnity will not apply to the extent Celgene has an indemnification obligation pursuant to Section 10.1 for such Third Party Damages.

10.3 Procedure. If a Party is seeking indemnification under Section 10.1 or 10.2, as applicable (the "**Indemnitee**"), it will inform the other Party (the "**Indemnitor**") of the claim giving rise to the obligation to indemnify pursuant to Section 10.1 or 10.2, as applicable, as soon as reasonably practicable after receiving notice of the claim (provided, however, that any delay or failure to provide such notice will not constitute a waiver or release of, or otherwise limit, the Indemnitee's rights to indemnification under Section 10.1 or 10.2, as applicable, except to the extent that such delay or failure materially prejudices the Indemnitor's ability to defend against the relevant claims). The Indemnitor will have the right to assume the defense of any such claim for which the Indemnitee is seeking indemnification pursuant Section 10.1 or 10.2, as applicable. The Indemnitee will cooperate with the Indemnitor and the Indemnitor's insurer as the Indemnitor may reasonably request, and at the Indemnitor's cost and expense. The Indemnitee will have the right to participate, at its own expense and with counsel of its choice, in the defense of any claim or suit that has been assumed by the Indemnitor. The Indemnitor will not settle any claim without the prior written consent of the Indemnitee, not to be unreasonably withheld; provided, however, that the Indemnitor will not be required to obtain such consent if the settlement (a) involves only the payment of money which is fully paid by the Indemnitor and will not result in the Indemnitee (or other Company Indemnitees or Celgene Indemnitees, as applicable) becoming subject to injunctive or other similar type of relief, (b) does not require an admission by the Indemnitee (or other Company Indemnitees or Celgene Indemnitees, as applicable), (c) includes an unconditional release of the Indemnitee (or other Company Indemnitees or Celgene Indemnitees, as applicable) from all liability on claims that are the

subject matter of such proceeding, and (d) does not materially adversely affect any intellectual property owned or controlled by Indemnitee or any rights or licenses granted to the Indemnitee under this Agreement (or under a Global License Agreement). The Indemnitee will not settle or compromise any such claim without the prior written consent of the Indemnitor, not to be unreasonably withheld. If the Parties cannot agree as to the application of Section 10.1 or 10.2, as applicable, to any claim, pending resolution of the dispute pursuant to Article 12, the Parties may conduct separate defenses of such claims, with each Party retaining the right to claim indemnification from the other Party in accordance with Section 10.1 or 10.2, as applicable, upon resolution of the underlying claim. In each case, the Indemnitee will reasonably cooperate with the Indemnitor, and will make available to the Indemnitor all pertinent information under the control of the Indemnitee, which information will be subject to Article 8.

10.4 Insurance. During the Collaboration Term and for a period of not less than ten (10) years thereafter, each Party will maintain, at its cost, a program of insurance or, in the case of Celgene, self-insurance, against liability and other risks associated with its activities and obligations under this Agreement (including with respect to its Clinical Trials), and its indemnification obligations hereunder, in such amounts, subject to such deductibles, and on such terms, as are customary for such Party for the activities to be conducted by it under this Agreement. It is understood that such insurance will not be construed to create a limit on either Party's liability with respect to its indemnification obligations under this Article 10 or otherwise.

10.5 LIMITATION OF LIABILITY. NEITHER COMPANY NOR CELGENE, NOR ANY OF THEIR RESPECTIVE AFFILIATES WILL BE LIABLE TO THE OTHER PARTY TO THIS AGREEMENT OR SUCH OTHER PARTY'S AFFILIATES UNDER OR IN CONNECTION WITH THIS AGREEMENT FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE OR EXEMPLARY DAMAGES (INCLUDING LOST PROFITS OR LOST REVENUES), WHETHER LIABILITY IS ASSERTED IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), INDEMNITY, CONTRIBUTION OR OTHERWISE, AND IRRESPECTIVE OF WHETHER COMPANY OR CELGENE, AS APPLICABLE, OR ANY REPRESENTATIVE OF THE APPLICABLE PARTY HAS BEEN ADVISED OF, OR OTHERWISE MIGHT HAVE ANTICIPATED THE POSSIBILITY OF, ANY SUCH LOSS OR DAMAGE. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 10.5 IS INTENDED TO OR SHALL LIMIT OR RESTRICT (1) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY UNDER SECTIONS 10.1 OR 10.2 WITH RESPECT TO ANY THIRD PARTY DAMAGES, OR (2) DAMAGES AVAILABLE FOR A PARTY'S BREACH OF ITS CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 8 OR ITS EXCLUSIVITY OBLIGATIONS UNDER ARTICLE 5.

ARTICLE 11
TERM AND TERMINATION

11.1 Term; Expiration. This Agreement will become effective on the Collaboration Effective Date and, unless earlier terminated in accordance with this Article 11, will remain in effect until the expiration of the Collaboration Term.

11.2 Termination for Breach.

11.2.1 Material Breach. This Agreement may be terminated by either Party in its entirety or on a Collaboration Program-by-Collaboration Program basis for the material breach by the other Party of this Agreement or with respect to such Collaboration Program, as applicable; provided, that the breaching Party has not cured such breach within [***] (or [***] in the case of any payment obligations) after the date of written notice to the breaching Party of such breach (the "**Cure Period**"), which notice will describe such breach in reasonable detail and will state the non-breaching Party's intention to terminate this Agreement in its entirety or terminate this Agreement with respect to a given Collaboration Program pursuant to this Section 11.2.1. For clarity, but subject to Section 11.2.2, the Cure Period for any allegation as to a material breach under this Agreement with respect to a given Collaboration Program will run from the date that written notice was first provided to the breaching Party by the non-breaching Party. Any termination of this Agreement with respect to a given Collaboration Program under this Section 11.2.1 will become effective at the end of the Cure Period, unless the breaching Party has cured such material breach prior to the expiration of such Cure Period, or, if such material breach is not susceptible to cure within the Cure Period (other than material breaches of payment provisions), then such Cure Period will be extended for an additional [***] so long as the breaching Party continues to use commercially reasonable efforts to cure such material breach during such extension period. For the avoidance of doubt, termination of any particular Collaboration Program(s) pursuant to this Section 11.2.1 will not terminate (a) this Agreement with respect to any other Collaboration Program(s), or (b) any Global License Agreement for any Collaboration Program.

11.2.2 Disagreement as to Material Breach. If the Parties reasonably and in good faith disagree as to whether there has been a material breach pursuant to Section 11.2.1, then: (a) the Party that disputes that there has been a material breach may contest the allegation by referring such matter, within [***] following such notice of alleged material breach, for resolution to the Executive Officers, who will meet promptly to discuss the matter and determine, within [***] following referral of such matter, whether or not a material breach has occurred pursuant to Section 11.2.1; provided, that if the Executive Officers are unable to resolve such dispute within such [***] period after it is referred to them, the matter will be resolved as provided in Article 12; (b) the relevant Cure Period with respect thereto will be tolled from the date the breaching Party notifies the non-breaching Party of such dispute and through the resolution of such dispute in accordance with the applicable provisions of this Agreement; (c) during the pendency of such dispute, all of the terms and conditions of this Agreement will remain in effect and the Parties will continue to perform all of their respective obligations hereunder; and (d) if it is ultimately determined that the breaching Party committed such material breach, then the breaching Party will have the right to cure such material breach after such determination within the Cure Period which will commence as of the date of such determination. For the avoidance of doubt, this Section 11.2.2 shall not apply to any failure of Celgene to make the payment in Section 6.1.

11.3 Voluntary Termination. Celgene may terminate this Agreement, in its sole discretion, in its entirety or with respect to a Collaboration Program, upon [***] prior written notice to Company hereunder at any time. For the avoidance of doubt, any such termination of any particular Collaboration Program pursuant to this Section 11.3 will not terminate any other Collaboration Program or any Global License Agreement.

11.4 Termination for Bankruptcy. If either Party makes a general assignment for the benefit of creditors, appoints or suffers appointment of a receiver or trustee over all or substantially all of its property, files a petition under any bankruptcy or insolvency act or has any such petition filed against it which is not dismissed, discharged, bonded or stayed within [***] after the filing thereof (each, a "**Bankruptcy Event**"), the other Party may terminate this Agreement in its entirety effective immediately upon written notice to such Party; provided, that in connection therewith, the provisions of Section 7.5 will apply.

11.5 Termination for Celgene's Failure to Deliver Opt-in Exercise Notice. On a Collaboration Program-by-Collaboration Program basis, if Celgene fails to provide its Opt-in Exercise Notice to Company prior to the expiration of the Review Period for a Collaboration Program pursuant to Section 4.2, this Agreement will automatically terminate with respect to such Collaboration Program, effective upon expiration of such Review Period.

11.6 Effects of Expiration or Termination. In the event of expiration or termination of this Agreement in its entirety or in part with respect to any one or more Collaboration Programs (i) by Celgene pursuant to Section 11.2, 11.3, or 11.4, (ii) by Company pursuant to Section 11.2 or 11.4, upon the effective date of such expiration or termination, or (iii) automatically pursuant to Section 11.5:

(a) except as set forth in Section 11.8, all rights (including any unexercised Opt-in granted to Celgene hereunder) and licenses granted herein with respect to all terminated Collaboration Programs will terminate; and

(b) each Party will return or destroy all Confidential Information of the other Party with respect to the terminated Collaboration Programs, as required by Article 8.

11.7 Celgene Collaboration IP License. With respect to any Collaboration Program with respect to which Celgene does not timely exercise its Opt-in during the Opt-in Term for such Collaboration Program, upon termination or expiration of this Agreement with respect to such Collaboration Program, Celgene hereby grants (without any further action required on the part of Company) to Company and its Affiliates, an non-exclusive, royalty-free, fully paid, worldwide, irrevocable, perpetual license, with the right to grant sublicenses through multiple tiers, under the Celgene Collaboration IP for Company to conduct research, development, manufacturing, commercialization and other exploitation in connection with such Collaboration Program.

11.8 Surviving Provisions.

11.8.1 Accrued Rights; Remedies. Termination or expiration of this Agreement for any reason will be without prejudice to any rights that will have accrued to the benefit of any Party prior to such termination or expiration, and any and all damages or remedies (whether in law or in equity) arising from any breach hereunder, each of which will survive termination or expiration of this Agreement. Such termination or expiration will not relieve any Party from obligations which are expressly indicated to survive termination or expiration of this Agreement. Except as otherwise expressly set forth in this Agreement, the termination provisions of this Article 11 are in addition to any other relief and remedies available to either Party under this Agreement and at Law.

11.8.2 Survival. Without limiting the provisions of Section 11.8.1, the rights and obligations of the Parties set forth in the following Sections and Articles of this Agreement will survive the expiration or termination of this Agreement, in addition to those other terms and conditions that are expressly stated to survive termination or expiration of this Agreement: Article 1, Sections 7.3, 7.4, 7.6.1(a), 7.6.2(a) (first sentence only), 7.6.2(b), 7.6.3(a) (first sentence only), 7.6.4, 7.6.5, Article 8 (other than Section 8.2), Article 10, Article 11, Section 12.4, and Article 13 (other than Section 13.4.5).

11.8.3 Relationship to Global License Agreements. Termination of this Agreement in its entirety or with respect to a given Collaboration Program will not affect in any way the terms or provisions of any then-existing executed Global License Agreement, and such Global License Agreement will continue in full force and effect in accordance with its terms and conditions.

ARTICLE 12
DISPUTE RESOLUTION

12.1 Exclusive Dispute Resolution Mechanism. The Parties agree that the procedures set forth in this Article 12 will be the exclusive mechanism for resolving any dispute, controversy or claim between the Parties arising out of, relating to or otherwise by virtue of, this Agreement, any Party's rights or obligations under this Agreement, breach of this Agreement or the transactions contemplated by this Agreement (collectively, "**Disputes**"); provided, that decisions that are subject to the decision making authority of the JSC or a given Party, as expressly set forth in this Agreement, will not be subject to the provisions of this Article 12 so long as such decisions are made in accordance with this Agreement.

12.2 Informal Dispute Resolution. In the event of any Dispute, the Parties will first attempt in good faith to resolve such Dispute by negotiation and consultation between themselves. If, after [***] from receipt of the written notice of a Dispute, such Dispute has not been resolved on an informal basis, Celgene or Company may, at its sole discretion and by written notice to the other Party, refer the Dispute to the Executive Officers for attempted resolution by good faith negotiation for a [***] period following receipt of such written notice. If any Dispute is not resolved, with such thirty (30) day period by the Executive Officers, each Party may, at its sole discretion, seek resolution of such Dispute in accordance with Section 12.4.

12.3 Mediation

12.3.1 If a dispute arises out of or relates to this Agreement, or the breach thereof, and if the dispute cannot be settled through negotiation (as provided by Section 12.2), then the Parties agree before resorting to litigation (as provided by Section 12.4.1) to first try in good faith to settle the dispute by non-binding mediation with a neutral mediator; provided, however, that (a) no such mediation shall be required for any disagreement regarding the failure by a Party to fully pay any sum due hereunder, and (b) if such mediation has not been completed within [***] after a written request for mediation by either Party, then either Party may exercise any and all other remedies available to it, including under Section 12.4.

12.3.2 Each Party has the right to pursue provisional relief from any court, such as attachment, preliminary injunction, replevin, etc. to avoid irreparable harm, maintain the *status quo*, or preserve the subject matter of the dispute, even though mediation has not been commenced or completed.

12.4 Jurisdiction; Jury Trial; Equitable Relief.

12.4.1 Except as otherwise provided in Section 12.4.3, the sole jurisdiction and venue for all actions, suits and proceedings arising out of a Dispute (whether in contract, tort or otherwise) will be the federal courts (or if such courts do not have subject matter jurisdiction, the state courts) located in the Borough of Manhattan in New York, New York, U.S. Each Party hereby irrevocably and unconditionally (a) consents to submit to the exclusive jurisdiction of the federal courts (or if such courts do not have subject matter jurisdiction, the state courts) located in the Borough of Manhattan in New York, New York, U.S. for any action, suit or proceeding arising out of a Dispute, and (b) waives any objection to the laying of venue of any action, suit or proceeding arising out of a Dispute in the state and federal courts of the Borough of Manhattan in New York, New York, U.S. and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum. Each of the Parties agrees that process may be served upon it in the manner specified in Section 13.2 and irrevocably waives and covenants not to assert or plead any objection which it might otherwise have to such jurisdiction, or to such manner of service of process.

12.4.2 EXCEPT AS LIMITED BY LAWS, EACH PARTY HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE AND ENFORCEMENT HEREOF.

12.4.3 Notwithstanding the foregoing, or anything to the contrary herein, the Parties will be entitled to seek equitable relief, including injunction and specific performance, as a remedy for any breach of this Agreement, in any court having jurisdiction and without first having complied with the procedures set forth in Section 12.2. Such remedies will not be deemed to be the exclusive remedies for a breach of this Agreement but will be in addition to all other remedies available at law or equity. The Parties further agree not to raise as a defense or objection to the request or granting of such relief that any breach of this Agreement is or would be compensable by an award of money damages.

ARTICLE 13
MISCELLANEOUS

13.1 Severability. If any one or more of the terms or provisions of this Agreement is held by a court of competent jurisdiction or arbitrator to be void, invalid or unenforceable in any situation in any jurisdiction, such holding will not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the invalid, void or unenforceable term or provision in any other situation or in any other jurisdiction, and the term or provision will be considered severed from this Agreement, unless the invalid, void or unenforceable term or provision is of such essential importance to this Agreement that it is to be reasonably assumed that the Parties would not have entered into this Agreement without the invalid, void or unenforceable term or provision. If the final judgment of such court or arbitrator declares that any term or provision hereof is invalid, void or unenforceable, the Parties agree to (a) reduce the scope, duration, area or applicability of the term or provision or to delete specific words or phrases to the minimum extent necessary to cause such term or provision as so reduced or amended to be enforceable, and (b) make a good faith effort to replace any invalid, void or unenforceable term or provision with a valid and enforceable one such that the objectives contemplated by the Parties when entering this Agreement may be realized.

13.2 Notices. Any notice required or permitted to be given by this Agreement will be in writing and in English and will be (a) delivered by hand or by overnight courier with tracking capabilities, (b) mailed postage prepaid by first class, registered, or certified mail, or (c) delivered by email or facsimile followed by delivery via either of the methods set forth in (a) or (b), in each case, addressed as set forth below unless changed by notice so given:

If to Celgene:

Celgene Corporation
86 Morris Avenue
Summit, New Jersey 07901
Attention: Senior Vice President Business Development
Telephone: [***]
Facsimile: [***]
Email: [***]

With a copy to:

Celgene Corporation
86 Morris Avenue
Summit, New Jersey 07901
Attention: General Counsel
Telephone: [***]
Facsimile: [***]
Email: [***]

If to Company:

Kyn Therapeutics Inc.
1030 Massachusetts Avenue, Suite 400
Cambridge, MA 02138

Attention: Chief Executive Officer
Telephone: [***]
Facsimile: [***]
Email: [***]

With a copy to:

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
Attention: [***]
Telephone: [***]
Facsimile: [***]
Email: [***]

Any such notice will be deemed given on the date received, except any notice received after 5:30 p.m. (in the time zone of the receiving party) on a Business Day or received on a non-Business Day will be deemed to have been received on the next Business Day. A Party may add, delete, or change the person or address to which notices should be sent at any time upon written notice delivered to the other Party in accordance with this Section 13.2.

13.3 Force Majeure. A Party will not be liable for delay or failure in the performance of any of its obligations hereunder if such delay or failure is due to a cause beyond the reasonable control of such Party, including acts of God, fires, earthquakes, acts of war, terrorism, or civil unrest, or hurricane or other inclement weather ("**Force Majeure**"); provided, however, that the affected Party promptly notifies the other Party; and provided, further, that the affected Party will use its commercially reasonable efforts to avoid or remove such causes of non-performance and to mitigate the effect of such occurrence, and will continue performance in accordance with the terms of this Agreement whenever such causes are removed. When such circumstances arise, the Parties will negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution.

13.4 Assignment; Change of Control of Company.

13.4.1 Assignment Generally. Except as expressly permitted herein, this Agreement may not be assigned or transferred by any Party in whole or in part, nor may any Party assign or transfer any rights or obligations created by this Agreement, in each case, whether by operation of Law, assignment, succession or otherwise, except as expressly permitted hereunder without the prior written consent of the other Party, which consent will not be unreasonably withheld.

13.4.2 Celgene. Notwithstanding the limitations in Section 13.4.1, Celgene may assign or transfer this Agreement, or any rights or obligations hereunder in whole or in part, to (a) one or more Affiliates (provided, however, that Celgene will remain fully and unconditionally liable and responsible to Company for the performance and observance of all such duties and obligations by such Affiliate); or (b) its successor in interest in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business pertaining to the subject matter of this Agreement.

13.4.3 Company. Notwithstanding the limitations in Section 13.4.1, Company may assign or transfer this Agreement, or any rights or obligations hereunder in whole or in part, to (a) one or more Affiliates (provided, however, that Company will remain fully and unconditionally liable and responsible to Celgene for the performance and observance of all such duties and obligations by such Affiliate); or (b) its successor in interest in connection with the merger, consolidation, or sale of all or substantially all of its assets.

13.4.4 All Other Assignments Null and Void. The terms of this Agreement will be binding upon and will inure to the benefit of the successors, heirs, administrators and permitted assigns of the applicable Party. Any purported assignment in violation of this Section 13.4 will be null and void *ab initio*.

13.4.5 Change of Control of Company. In the event of any Change of Control of Company, Company shall (a) provide Celgene with written notice of such Change of Control within [***] of the consummation thereof, and (b) promptly following such consummation, use commercially reasonable efforts to Segregate the Development, Manufacturing, and Commercialization activities under this Agreement from the research, development, manufacturing and commercialization activities of any Collaboration Competing Product of the Acquiring Entity, including using commercially reasonable efforts to minimize the extent to which personnel involved in performing research, development, manufacturing or commercialization activities for any Collaboration Competing Product of the Acquiring Entity have access to non-public plans or non-public information relating to the Development, Manufacturing, or Commercialization of Collaboration Targets, Collaboration Candidates or Collaboration Products or any other relevant Confidential Information of Celgene or Company or any results of the Collaboration; provided, that senior management personnel may review and evaluate plans and information regarding the research, development, manufacturing, and commercialization of Collaboration Targets, Collaboration Candidates or Collaboration Products solely in connection with monitoring the progress of products, including portfolio decision-making among product opportunities.

13.5 Waivers and Modifications. The failure of any Party to insist on the performance of any obligation hereunder will not be deemed to be a waiver of such obligation. Waiver of any breach of any provision hereof will not be deemed to be a waiver of any other breach of such provision or any other provision on such occasion or any succeeding occasion. This Agreement may be amended, or any term hereof modified or waived, only by a written instrument duly executed by authorized representative(s) of both Parties hereto.

13.6 Choice of Law. This Agreement will be governed by, enforced, and will be construed in accordance with the laws of the State of New York, U.S. without regard to any conflict of laws provision that would result in the application of the Laws of any state other than the State of New York, U.S. and excluding the United Nations Convention on Contracts for the International Sale of Goods; provided, however, that with respect to matters involving the ownership of or enforcement of rights in or to intellectual property, the Laws of the applicable country will apply.

13.7 Relationship of the Parties. Company and Celgene are independent contractors under this Agreement. Nothing contained herein is intended or is to be construed so as to constitute (a) Company as a partner, agent, or joint venturer of Celgene, or (b) Celgene as a partner, agent or joint venturer of Company. Neither Company nor Celgene, respectively, will have any express or implied right or authority to assume or create any obligations on behalf of or in the name of Celgene or Company, respectively, or to bind Celgene or Company, respectively, to any contract, agreement, or undertaking with any Third Party.

13.8 No Third Party Rights. The provisions of this Agreement are for the exclusive benefit of the Parties, and no other person or entity will have any right or claim against any Party by reason of these provisions or be entitled to enforce any of these provisions against any Party.

13.9 Entire Agreement. This Agreement, together with the attached Exhibits (including the form of Global License Agreement) and Schedules, contains the entire agreement by the Parties with respect to the subject matter hereof and supersedes any prior express or implied agreements, understandings and representations, either oral or written, which may have related to the subject matter hereof in any way, including the Existing Confidentiality Agreement (as set forth in Section 8.10) and any and all term sheets relating to the transactions contemplated by this Agreement and exchanged between the Parties prior to the Collaboration Effective Date.

13.10 Counterparts. This Agreement may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts will be deemed an original, will be construed together, and will constitute one and the same instrument. Any such counterpart, to the extent delivered by means of a fax machine or by .pdf, .tif, .gif, .jpeg or similar attachment to electronic mail (any such delivery, an "**Electronic Delivery**") will be treated in all manner and respects as an original executed counterpart and will be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. No Party hereto will raise the use of Electronic Delivery to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of Electronic Delivery as a defense to the formation of a contract, and each Party forever waives any such defense, except to the extent that such defense relates to lack of authenticity.

13.11 Cumulative Remedies. No remedy referred to in this Agreement is intended to be exclusive, but each will be cumulative and in addition to any other remedy referred to in this Agreement or otherwise available under Law.

13.12 Interpretation.

13.12.1 Generally. This Agreement has been diligently reviewed by and negotiated by and among the Parties, and in such negotiations each of the Parties has been represented by competent counsel, and the final agreement contained herein, including the language whereby it has been expressed, represents the joint efforts of the Parties and their counsel. Accordingly, in interpreting this Agreement or any provision hereof, no presumption will apply against any Party as being responsible for the wording or drafting of this Agreement or any such provision, and ambiguities, if any, in this Agreement will not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision.

13.12.2 Definitions; Interpretation. The definitions of the terms herein will apply equally to the singular and plural forms of the terms defined and where a word or phrase is defined herein, each of its other grammatical forms will have a corresponding meaning. Whenever the context may require, any pronoun will include the corresponding masculine, feminine and neuter forms. The word "shall" will be construed to have the same meaning and effect as the word "will." The word "any" will mean "any and all" unless otherwise clearly indicated by context. The words "including," "includes," "include," "for example," and "e.g." and words of similar import will be deemed to be followed by the words "without limitation." The word "or" shall be deemed to mean "and/or" unless the context otherwise requires. The words "hereof," "herein" and "herewith" and words of similar import will, unless otherwise stated, be construed to refer to this Agreement as a whole and not to any particular provision of this Agreement. Unless the context requires otherwise or otherwise specifically provided, (a) all references herein to Articles, Sections, Schedules or Exhibits will be construed to refer to Articles, Sections, Schedules and Exhibits of this Agreement and (b) reference in any Section to any subclauses are references to such subclauses of such Section.

13.12.3 Subsequent Events. Unless the context requires otherwise, (a) any definition of or reference to any agreement, instrument, or other document herein will be construed as referring to such agreement, instrument, or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements, or modifications set forth herein), (b) any reference to any Laws herein will be construed as referring to such Laws as from time to time enacted, repealed or amended, and (c) any reference herein to any Person will be construed to include the Person's successors and assigns.

13.12.4 Headings. Headings, captions and the table of contents are for convenience only and are not to be used in the interpretation of this Agreement.

13.12.5 Prior Drafts. No prior draft of this Agreement nor any course of performance or course of dealing will be used in the interpretation or construction of this Agreement.

13.12.6 Independent Significance. Although the same or similar subject matters may be addressed in different provisions of this Agreement, the Parties intend that, except as reasonably apparent on the face of the Agreement or as expressly provided in this Agreement, each such provision will be read separately, be given independent significance and not be construed as limiting any other provision of this Agreement (whether or not more general or more specific in scope, substance or content).

13.13 Further Assurances. Each Party will execute, acknowledge and deliver such further instruments, and do all such other ministerial, administrative or similar acts, as may be necessary or appropriate in order to carry out the expressly stated purposes and the clear intent of this Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Parties have caused this MASTER COLLABORATION AGREEMENT to be executed by their respective duly authorized officers as of the Collaboration Effective Date.

KYN THERAPEUTICS INC.

By: /s/ Mark Manfredi
Name: Mark Manfredi
Title: President and Chief Executive Officer

[*Signature Page to Master Collaboration Agreement*]

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Parties have caused this MASTER COLLABORATION AGREEMENT to be executed by their respective duly authorized officers as of the Collaboration Effective Date.

CELGENE CORPORATION

By: /s/ Mark J. Alles
Name: Mark J. Alles
Title: Chairman and CEO

[*Signature Page to Master Collaboration Agreement*]

Schedule 1.28

Company Background Patents

Company Controls the following Background Patents as described below:

Pursuant to the UT License, the University of Texas at Austin, on behalf of the Board of Regents of the University of Texas System has granted to the Company an exclusive, world-wide license to (a) certain of the patent applications listed in the table below; (b) all non-provisional patent applications that claim priority to any provisional application listed below; (c) all divisionals, continuations, and such claims of continuations-in-part as are entitled to claim priority to certain of the applications listed below, and all reissues, reexaminations, extensions of, and foreign counterparts; and (d) any patents that issue with respect to the aforesaid patent applications.

Territory	Application No.	Application Date	Publication No.	Patent No.	Legal Status
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
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[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]

Company owns the following Company Background Patents:

DOCKET NO.	COUNTRY	SERIAL NO	FILING DATE	PUBLICATION NO.	STATUS	TITLE
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]	[***]

Schedule 3.5

Subcontracting Essential Provisions

IP Ownership: Retain or obtain Control of any and all Know-How or Patents related to the Collaboration, which may be created by or used with the relevant Party's permission by such subcontractor in connection with such subcontracted activity (other than Know-How and Patents that are not specific to the Collaboration and that are related to the subcontractor's broader technology platform or business).

IP Licenses: Obtain licenses to any Know-How or Patents owned or controlled by the subcontractor, which may be created by or used by the subcontractor in connection with such subcontracted activity (including Know-How and Patents that are not specific to the Collaboration and that are related to the subcontractor's broader technology platform or business), that falls within the scope of any licenses granted by the subcontracting Party to the other Party under the Collaboration.

Publication: Publications by the subcontractor are not permitted without the subcontracting Party's prior written consent (and if related to the Collaboration, is subject to Article 8 of this Agreement).

Confidentiality: Consistent with the terms of Article 8, where practicable, but in no event less than reasonable confidentiality, non-disclosure and non-use obligations.

Assignment: Assignment of the agreement, and any rights and obligations thereunder, by the subcontractor is not permitted without the subcontracting Party's prior written consent, except to Affiliates and/or any successor in interest in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business pertaining to the subject matter of the subcontract.

Schedule 8.7.1

Form of Press Release

Kyn Therapeutics Enters into Global Strategic Collaboration with Celgene to Develop Immuno-oncology Therapies

- Celgene gains exclusive options to two Kyn therapeutic programs
- Kyn to receive $80 million upfront payment and an equity investment by Celgene with potential clinical, regulatory and commercial milestone payments, plus additional royalties on net sales from licensed programs

Boston, Mass. – January X, 2019 – Kyn Therapeutics, a clinical-stage biotechnology company advancing research into new immunometabolic therapies for treating cancer, today announced it has entered into a global strategic collaboration with Celgene Corporation (NASDAQ:CELG). The goal of the collaboration is to develop novel immuno-oncology therapies through uniting Kyn's immuno-oncology expertise and pipeline with Celgene's capabilities for developing and commercializing medicines in areas of high unmet medical need. The collaboration begins with an upfront payment and an equity investment by Celgene, which receives exclusive options to license Kyn's aryl hydrocarbon receptor (AHR) antagonist program and its kynurenine-degrading enzyme ("Kynase") program.

AHR and kynurenine are associated with immunosuppression in a range of tumor types through multiple cellular metabolic mechanisms that modulate both innate and adaptive immunity. These attributes make them compelling targets for investigative therapies, in particular in patients who do not fully benefit from current treatments like checkpoint inhibitors.

"At Kyn, our team has built a diverse portfolio informed by the most compelling biology in the field of immunometabolism to establish a leadership position in this area of innovative cancer therapy development," said Mark Manfredi, Ph.D., president and chief executive officer of Kyn Therapeutics. "Celgene's R&D capabilities and focus on groundbreaking biology are a strong strategic fit for Kyn's programs. As a fast-growing immuno-oncology therapeutics developer, we also welcome Celgene onboard as an equity investor and supporter of our R&D strategy and leadership."

"This collaboration signals our continued commitment to work with partners to develop innovative treatments for patients with unmet medical need," said Robert Hershberg, M.D., Ph.D., Head of Business Development and Global Alliances for Celgene Corporation.

Under the terms of the agreement, Kyn will receive an upfront cash payment of $80 million and an equity investment from Celgene for exclusive options to globally license the Kynase and AHR antagonist programs. For each program, Kyn is responsible for R&D activities through Phase 1b, at which time Celgene can opt in to lead and fund global development and commercialization of the licensed programs. If successful, Kyn is eligible for substantial clinical, regulatory and commercial milestone payments. Kyn will also receive tiered royalties on worldwide net sales on products resulting from development of the licensed programs.

About Kyn Therapeutics

Kyn Therapeutics is a clinical-stage biotechnology company advancing new immunometabolic therapies for cancer. A growing body of research indicates that key metabolites can exert broad suppressive or enhancing effects on the immune system through a complex network of cellular interactions, providing targets for new therapies that could significantly enhance patient response rates to checkpoint inhibitors. Kyn Therapeutics is advancing development programs with targets strongly implicated in immunosuppression across a range of tumor types and via multiple immune cell effects. Kyn launched in December 2017 with a $49M Series A funding provided by OrbiMed Advisors and Atlas Venture. Kyn Therapeutics is based in Boston, Massachusetts. For more information, visit www.kyntherapeutics.com. Follow us on Twitter and LinkedIn.

Media Contact

Tom Donovan
Ten Bridge Communications
[***]

Schedule 9.2(d)

Certain Agreements

[***]

Schedule 9.2(s)

Encumbered Compounds

[***]

Exhibit A-1

Form of Global License Agreement (AHR)

[***]

Exhibit A-2

Form of Global License Agreement (Kynureninase)

[***]

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

Patent License Agreement
Agreement No. [***]

This Patent License Agreement is between the Licensor and the Licensee identified below (collectively, ''Parties", or singly, "Party").

No binding agreement between the Parties will exist until this Patent License Agreement has been signed by both Parties. Unsigned drafts of this Patent License Agreement shall not be considered offers.

Background

Licensor owns or controls Patent Rights. Licensee desires to secure the right and license to use, develop, manufacture, market, and commercialize the Patent Rights. Licensor has determined that such use, development, and commercialization of the Patent Rights is in the public's best interest and is consistent with Licensor's educational and research missions and goals. Licensor desires to have the Patent Rights developed and used for the benefit of Licensee, the inventors, Licensor, and the public.

NOW, THEREFORE, in consideration of the mutual covenants and premises herein contained, the Parties hereby agree as follows:

The Terms and Conditions of Patent License attached hereto as Exhibit A are incorporated herein by reference in their entirety (the "Terms and Conditions"). In the event of a conflict between provisions of this Patent License Agreement and the Terms and Conditions, the provisions in this Patent License Agreement shall govern. Unless defined in this Patent License Agreement, capitalized terms used in this Patent License Agreement shall have the meanings given to them in the Terms and Conditions.

The section numbers used in the left hand column in the table below correspond to the section numbers in the Terms and Conditions.

1. Definitions

Effective Date	Date of last signature
Licensor	The University of Texas at Austin, on behalf of the Board of Regents of the University of Texas System, an agency of the State of Texas, whose address is 3925 W. Braker Lane, Suite 1.9A (R3500), Austin, Texas 78759.
Licensee	Kyn Therapeutics, a Texas LLC, with its principal place of business at 6405 Williams Ridge Way Austin, TX 78731
Contract Year and Contract Quarters	(Check one box to correspond with Licensee fiscal year and quarters) ☒ Contract Year is 12-month period ending on December 31 and Contract Quarters are 3-month periods ending on March 31, June 30, Sept. 30, Dec. 31 OR ☐ Other: Contract Year is 12-month period ending on specify): [month and day]; Contract Quarters are 3-month periods ending on (specify): [month and day, Q1], [month and day, Q2], [month and day, Q3], [month and day, Q4]

Territory	☒ World-wide
Field	All fields OR ☐ Limited fields
	Field: [Describe field of use] Field: [Describe field of use] If the Field is not “All Fields” and “Limited fields” is checked, Excluded Fields include:
	Excluded Field: [Describe excluded field of use]
	Excluded Field: [Describe excluded field of use]

Patent Rights

App. No/ Date of Filing	Title	Inventor(s)	Jointly Owned? (Y/N; if Y, with whom?)	Prosecution Counsel
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]

USPTO Entity Status as of Effective Date	Check one box:
	☒ Small
	☐ Large

2.4. Diligence Milestones

Milestones and deadlines	Milestone Events	Deadlines
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]
	[***]	[***]

3. Compensation

3.1(a)	**Patent expenses due on or before 12/31/17, subject to Section 3.1(a) in Terms and Conditions**	**Amount**	**based on invoices received as of:**
		[***]	[***]

3.1(b)	**Milestone fees**	**Milestone Events**	**Milestone Fees**
		[***]	[***]
		[***]	[***]
		[***]	[***]
		[***]	[***]
		[***]	[***]
		[***]	[***]

3.1(c)	**Scheduled license fee payments**	[***]
3.1(d)	**Non-Royalty Sublicense Consideration paid to Licensor (excluding funds for R&D)**	[***]
3.1(e)	**Assignment fee**	[***]
3.2	**Running royalty rate (applies to Sales by Licensee, Affiliates and Sublicensees)**	[***]
3.3	**Minimum royalty (includes Sublicense Fees paid)**	[***]

18. Contact Information

Licensee Contacts	Licensor Contacts
Contact for Notice: Attn: George Georgiou and/or Maryjean Dotis, Kyn Therapeutics, [***] Fax: [***] Phone: [***] E-mail: [***] Accounting contact: Attn: Maryjean Dotis [***] Fax: [***] Phone: [***] E-mail: [***] Patent prosecution contact: Attn: Maryjean Dotis [***] Fax: [***] Phone: [***] E-mail: [***]	Contact for Notice: Attn: Contract Manager 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***] Payment and reporting contact: Checks payable to “The University of Texas at Austin” Attn: Accounting 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***] Patent prosecution contact: Attn: Patents 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]

For Licensor Administrative Purposes Only

Changes to Standard Form Terms and Conditions	Most sections of Licensor’s standard form Terms and Conditions have been changed.

20. <u>Special Provision</u>. The Parties hereby agree to the following special provisions set forth in this Section 20 with respect to this Patent License Agreement.

20.1 <u>Commercial Development Milestones.</u>

20.1.1 Upon written request from Licensee to Licensor given prior to the scheduled deadline date to achieve a particular milestone event set forth in Section 2.4, Licensee may request a [***]extension of said milestone deadline date; and said request shall be accompanied by evidence that demonstrates to Licensor’s reasonable satisfaction that Licensee (and/or its Affiliates and Sublicensees) have been devoting continued diligent efforts to achieve said milestone; and Licensor shall grant the requested extension if [***].

20.1.2 If a first extension has been granted pursuant to Section 20.1.1 for a particular milestone deadline, Licensee may request a second [***] extension for the same milestone deadline, which request shall be made in accordance with the provisions set forth in Section 20.1.1; [***].

20.2 Name Change

If Kyn Therapeutics L.L.C. changes its name or entity business form, the Parties agree to amend this Agreement to reflect such changes.

21. <u>No Other Promises and Agreements; Representation by Counsel</u>. Licensee expressly warrants and represents and does hereby state and represent that no promise or agreement which is not herein expressed has been made to Licensee in executing this Patent License Agreement except those explicitly set forth herein and in the Terms and Conditions, and that Licensee is not relying upon any statement or representation of Licensor or its representatives. Licensee is relying on Licensee's own judgment and has had the opportunity to be represented by legal counsel. Licensee hereby warrants and represents that Licensee understands and agrees to all terms and conditions set forth in this Patent License Agreement and said Terms and Conditions.

22. <u>Deadline for Execution by Licensee</u>. If this Patent License Agreement is executed first by the Licensor and is not executed by the Licensee and received by the Licensor at the address and in the manner set forth in Section 18 of the Terms and Conditions [***] of the date of signature set forth under the Licensor's signature below, then this Patent License Agreement shall be null and void and of no further effect.

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized representatives to execute this Patent License Agreement.

LICENSOR: THE UNIVERSITY OF TEXAS AT AUSTIN ON BEHALF OF THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM	LICENSEE: **Kyn Therapeutics, LLC**
By: /s/ Daniel W. Sharp Daniel W. Sharp, J.D. Associate Vice President for Research and Director, Office of Technology Commercialization The University of Texas at Austin Date: 3/25/15	By GEORGE GEORGIOU /s/ George Georgiou Manager, Kyn Therapeutics L.L.C. Date: 3/29/15

EXHIBIT A
Terms and Conditions of Patent License

These Terms and Conditions of Patent License ('Terms and Conditions') are incorporated by reference into the Patent License Agreement to which they are attached. All Section references in these Terms and Conditions shall be references to provisions in these Terms and Conditions unless explicitly stated otherwise.

1. Definitions

"Affiliate" means with any person, corporation or other business entity which, directly or indirectly through one or more intermediaries, actually controls, is actually controlled by, or is under common control with a party. As used in this paragraph, "control" means to possess, directly or indirectly, the poorer to affirmatively direct the management and policies of such person, corporation or other business entity, whether through ownership of at least [***] of the voting securities or by contract relating to voting rights or corporate governance.

"**Agreement**" means collectively (i) these Terms and Conditions, and (ii) the Patent License Agreement

"BLA" means Biological License Application, as defined in the U.S. Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, as well as any equivalent foreign application, registration or certification in the relevant country, such as a Marketing Approval Application in Europe, in each case with respect to a Licensed Product.

"Commercially Reasonable Efforts" means the expenditure of those efforts and resources used consistent with the usual practice of similarly situated companies in pursuing development or commercialization of its other similar pharmaceutical products with similar market potential and at a similar stage in development.

"**Contract Quarter**" means the three-month periods indicated as the Contract Quarter in Section 1 of the Patent License Agreement, or any stub period thereof at the commencement of the Agreement or the expiration or termination of the Agreement.

"**Contract Year**" means the 12-month periods indicated as the Contract Year in Section 1 of the Patent License Agreement, or any stub period thereof at the commencement of the Agreement or the expiration or termination of the Agreement.

"Covered" means that the use, manufacture, sale, offer for sale, development, commercialization or importation of the subject matter in question by an unlicensed entity would infringe a Valid Claim of a Patent Right.

"Cumulative Received Capital" means the total funding received by Licensee which funding may be. received in connection with any type of transaction, including, without limitation, grants, financings, licensing, research and development, and strategic collaborations.

"**Effective Date**" means the date indicated as the Effective Date in Section 1 of the Patent License Agreement.

"**Fair Market Value**" means the cash consideration an unaffiliated, unrelated buyer would pay in an arm's length sale of a substantially identical item sold in the same quantity, under the same terms, and at the same time and place.

"**Field**" means the field indicated as the Field identified in Section 1 of the Patent License Agreement.

"**First Commercial Sale**" means the initial transfer by or on behalf of Licensee, Affiliates, or Sublicensees of Licensed Product or Licensed Process in exchange for cash or some equivalent to which value can be assigned for the purpose of determining Net Product Sales; provided, however, First Commercial Sale shall not include transfer at or below cost, by or on behalf of Licensee, Affiliates, or Sublicensees of Licensed Product or Licensed Process in connection with compassionate use, emergency use, INDs, or the like authorized by the US Food and Drug Administration or corresponding foreign agencies.

"**Government**" means any agency, department, unit, or other instrumentality of the United States of America, or any foreign country or any proving state, county, city or other political subdivision (including any supra-national agency such as in the European Union),

"**Gross Consideration**" means all cash and non-cash consideration (e.g., securities).

"IND" means an Investigational New Drug Application, as defined in the U.S. Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or comparable filing in a foreign jurisdiction, in each case with respect to a Licensed Product.

"**Licensed Process**" means a method or process whose practice or use is Covered by a Valid Claim.

"**Licensed Product**" means any product or component (i) whose manufacture, use, sale, offer for sale or import is Covered by any Valid Claim, or (ii) which is made using a Licensed Process or another Licensed Product.

"**Licensee**" means the Party identified as the Licensee in Section 1 of the Patent License Agreement.

"**Licensor**" means the Party identified as the Licensor in Section 1 of the Patent License Agreement.

"**Milestone Fees**" means ail fees identified as Milestone Fees in Section 3.1(b) of the Patent License Agreement.

"**Net Product Sales**" means Gross Consideration for Licensee's, its Affiliates', and Sublicensees' sales of Licensed Products, less the sum of the following, to the extent related to the sale of such Licensed Products: (1) discounts in amounts reasonable or customary in the trade, including but not limited to trade, cash, consumer, and quantity discounts, and credits, price adjustments or allowances for damaged Licensed Products, returns, defects, recalls or rejections of Licensed Products or retroactive price reductions; (2) reasonable rebates, credits, and chargeback payments granted to any Government or managed health care organizations, including their agencies, purchasers; and/or reimbursers; under programs available under or required by applicable laws, rules or regulations, or reasonably entered into to sustain and/or increase market share for Licensed Products; (3) sales, value added, use, excise, and similar taxes (but excluding all types

of income tax); (4) amounts allowed or credited on returns for defective, damaged, expired, or otherwise unuseable or unsaleable Licensed Products; (5) freight, shipping, handling, and insurance charges that are specifically included in the billed amount; and (6) import or export duties, tariffs, or similar charges incurred with respect to the import or export of Licensed Products into or out of any country. Such amounts shall be determined from the books and records of Licensee, its Affiliates, and Sublicensees maintained in accordance with such reasonable accounting principles as may be consistently applied by Licensee, its Affiliates, arid Sublicensees.

Licensed Products are considered "sold" when billed out or invoiced and when the consideration for sale of the Licensed Products is received, and in the event such Licensed Products are not billed out or invoiced, when the consideration for sale of the Licensed Products is received. Notwithstanding the foregoing, Net Product Sales shall not include, and shall be deemed zero with respect to, (i) Licensed Products used by Licensee, its Affiliates, or Sublicensees for their internal use, (ii) the distribution of reasonable quantities of free promotional samples of Licensed Products, (iii) Licensed Products provided for clinical trials or research, development, or evaluation purposes, or (iv) Licensed Products provided by or on behalf of Licensee, an Affiliate or a Sublicensee to Licensee, an Affiliate or a Sublicensee for purposes of resale, provided such resale is subject to a-payments due Licensor under Section 3.2 of this Agreement. For avoidance of doubt, if Licensee sells a Licensed Product to an Affiliate or Sublicensee for the purpose of the Affiliate or Sublicensee reselling the Licensed Product, the final arms-length transaction sale by the Affiliate or Sublicensee shall be the royalty bearing sales transaction, rather than the intermediary sale(s).

[***].

"**Non-Royalty Sublicensing Consideration**" means the Gross Consideration received by the Licensee or its Affiliate from a Sublicensee under a Sublicense Agreement in consideration of the grant of a sublicense under the Patent Rights, including, without limitation, fees for such sublicense or fees for an option under such sublicense or fees for distribution under such sublicense or assignment fees for the assignment of such sublicense, fees to maintain license rights, and bonus/milestone payments (net of any withholding taxes or similar taxes imposed by any Government that are not reasonably recoverable by Licensee or any Affiliate thereof), but excluding (a) amounts received as running royalties, a profit share, or other revenue sharing based on sales of Licensed Products for which Licensor receives a running royalty under Section 3.2, (b) purchase price for Licensee's stock or other securities not in excess of Fair Market Value, and (c) payments made for Licensee's or its Affiliates' performance after the date of the Sublicense Agreement of any research or development work for any Licensed Product (or the reimbursement of any of Licensee's or its Affiliates' costs and expenses related to such research or development work) so long as said payments are not in excess of the Fair Market Value for such work, (d) any payment or reimbursement of any costs for filing, prosecution, maintenance, or defense of any Patent Rights, and (e) other Fair Market Value payments made by a Sublicensee as consideration for Licensee's or an Affiliate's performance of services after the date of Sublicense Agreement or provision of goods.

"**Patent License Agreement**" means the particular Patent License Agreement to which these Terms and Conditions are attached and incorporated into by reference.

"**Patent Rights**" means the Licensor's rights in (a) the patents and patent applications listed in Section 1 of the Patent License Agreement; (b) all non-provisional patent applications that claim priority to provisional application listed in Section 1 of the Patent License Agreement; and (c) all divisionals, continuations, and such claims of continuations-in-part as are entitled to claim priority to the aforesaid patents and/or patent applications, and all reissues, reexaminations, extensions of, and foreign counterparts; and (d) any patents that issue with respect to the aforesaid patent applications. From time to time during the term of the Agreement, upon written agreement by both parties, Licensee and Licensor shall update the list of all patent applications and patents within the Patent Rights.

"Phase II" means a means a human clinical trial of a Licensed Product, including possibly pharmacokinetic studies, the principal purpose of which is to make a preliminary determination that such Product is safe in a patient population for its intended use and to obtain sufficient information about such Product's efficacy to permit the design of further clinical trials, and generally consistent with 21 CFR § 312.21(b). Said trial may be conducted in any country.

"Phase III means a human clinical trial of a Licensed Product, which trial is designed to: (a) establish that a Licensed Product is safe and efficacious for its intended use; (b) define warnings, precautions and adverse reactions that are associated with the Licensed Product in the dosage range to be prescribed; (c) support regulatory approval of such Licensed Product; and (d) be generally consistent with 21 CFR § 312.21(c). Said trial may be conducted in any country.

"**Prosecution Counsel**" means the law firm or attorney who is handling the prosecution of the Patent Rights. Prosecution Counsel as of the Effective Date is identified in Section 1 of the Patent License Agreement.

"**Quarterly Payment Deadline**" means the day that is [***] after the last day of any particular Contract Quarter.

"Regulatory Approval" means the approval by the Regulatory Authority needed for a particular national jurisdiction to market, sell and use a Licensed Product in that national jurisdiction

"Regulatory Authority" means the governmental authority responsible for granting any necessary licenses or approvals for the marketing, sale and use of a Licensed Product or Licensed Service in a particular national jurisdiction, including without limitation, the FDA, European Medicines Agency or Koseisho (i.e. the Japanese Ministry of Health and Welfare).

"**Sublicense Agreement**" means any agreement or arrangement pursuant to which Licensee (or an Affiliate or Sublicensee) grants to any third party any license rights of Licensee under the Agreement.

"**Sublicense Fee**" means the fee specified in Section 3.1(d) of the Patent License Agreement.

"**Sublicensee**" means any entity to whom an express sublicense has been granted under the Patent Rights.

"**Territory**" means the territory so indicated as the Territory in Section 1 of the Patent License Agreement.

"**Valid Claim**" means a claim of (i) an issued and unexpired patent included within the Patent Rights unless the claim has been held unenforceable or invalid by the final, un-reversed, and un-appealable decision of a court or other government body of competent jurisdiction, has been irretrievably abandoned or disclaimed, or has otherwise been finally admitted or determined to be invalid, un-patentable or unenforceable, whether through reissue, reexamination, disclaimer or

otherwise, or (ii) a pending patent application within the Patent Rights to the extent the claim continues to be prosecuted in good faith provided that if a particular claim has not issued within [***] of its initial National-stage filing, it shall not be considered a Valid Claim for purposes of this Agreement unless and until such claim is included in an issued patent, notwithstanding the foregoing definition.

2. License Grant and Commercialization

2.1 **Grant**

(a) Licensor grants to Licensee a royalty-bearing exclusive license, including the right to grant sublicense per Section 2.3 below, under Patent Rights to manufacture, have manufactured, distribute, have distributed, use, offer for sale, sell, lease, loan and/or import and export Licensed Products in the Field in the Territory.

(b) This grant is subject to (i) the payment by Licensee to Licensor of all consideration required under the Agreement, (ii) any rights of, or obligations to, the United States Government as set forth in Section 11.2 (United States Government Rights), and (iii) rights retained by Licensor to:

(1) Publish the scientific findings from research related to the Patent Rights; and

(2) Manufacture, have manufactured, and use the Patent Rights for not-for profit purposes including teaching, research, patient care, education, and other educationally-related purposes; and

(3) Grant rights to, and transfer material embodiments of, the Patent Rights to other academic institutions or non-profit research institutions for the purposes identified in clauses (1) and (2) above.

(c) Licensor reserves all rights not expressly granted in the Agreement and disclaims the grant of any implied rights to Licensee.

2.2 Affiliates

Licensee may extend the license granted herein to any Affiliate provided that the Affiliate agrees in writing to be bound by the Agreement to the same extent as Licensee. Licensee agrees to deliver such written agreement to Licensor within [***] following execution. No additional consideration shall be due to Licensor in connection with such extension.

2.3 Sublicensing

Licensee and its Affiliates, subject to Section 2.2 above, have the right to grant Sublicense Agreements under the Patent Rights. However, the Parties agree that Licensee shall not grant any Sublicense Agreements in calendar year [***].

Each such Sublicense Agreement must be consistent with the terms of the Agreement, subject to the following:

(a) A Sublicense Agreement shall not exceed the rights granted to Licensee hereunder. Sublicensee must agree in writing to be bound by the applicable terms and conditions of the Agreement that are consistent with, no less protective of Licensor's rights than, and does not conflict with, the terms of this Agreement, and shall indicate that Licensor is a third party beneficiary and entitled to enforce the terms and conditions of the Sublicense Agreement applicable to the Agreement. Each Sublicense Agreement shall be granted for commercially reasonable consideration. In the event of termination of the Agreement, continued sublicense rights shall be governed by Section 7.5(a) {Effect of Termination). [***].

(b) Licensor shall be given a true, complete, and correct copy of each Sublicense Agreement granted by Licensee, Affiliate or Sublicensee, and any modification or termination thereof within [***] following the applicable execution of the respective Sublicense Agreement or any amendment to such Sublicense Agreement, and notwithstanding anything to the contrary herein, such Sublicense Agreement shall be deemed Licensee's Confidential Information. If the Sublicense Agreement is not in English, Licensee shall provide Licensor an accurate English translation of the Sublicense Agreement as well as a copy of the original, untranslated Sublicense Agreement. Licensee may redact highly confidential information from a Sublicense Agreement that is not required for Licensor to monitor compliance with the terms of this Agreement

(c) Notwithstanding any such Sublicense Agreement, Licensee will remain primarily liable to Licensor for all of the Licensee's duties and obligations contained in the Agreement, including without limitation the payment of running royalties due under Section 3.2 whether or not paid to Licensee by a Sublicensee. Any act or omission of a Sublicensee that would be a breach of the Agreement if performed by Licensee will be deemed to be a breach by Licensee unless Licensee complies with the remaining provisions of this paragraph. Each Sublicense Agreement will contain a right of termination by Licensee in the event that the Sublicensee breaches the payment or reporting obligations affecting Licensor or any other forms and conditions of the Sublicense Agreement that would constitute a breach of the Agreement if such acts were performed by Licensee. In the event of such a Sublicensee breach and if after a reasonable opportunity to cure as provided in any such Sublicense Agreement (not to exceed [***] for a payment breach and [***] for a non-payment breach), such Sublicensee fails to cure such Sublicensee breach, then the Licensee will terminate the Sublicense Agreement within [***] thereafter, with copy of such written notice of termination to Licensor, unless agreed to in writing otherwise by Licensor.

2.4 Diligent Commercialization

Licensee by itself or through its Affiliates and Sublicensees will use Commercially Reasonable Efforts to research, develop and commercialize at least one Licensed Product in the Field in the Territory. Without limiting the foregoing. Licensee will fulfill the milestone events specified in Section 2.4 of the Patent License Agreement by the deadlines indicated therein and use diligent and commercially reasonable efforts to perform and complete the plans described in the annual report submitted pursuant to Section 4.2 (Annual Written Progress Report). Licensor hereby agrees that the efforts of Sublicensees, Affiliates, and any third party contractors shall be deemed the acts of Licensee for purposes of satisfying this Section 2.4, and for the purposes of fees due under Section 3.1(b) of the Patent License Agreement. If the obligations under this Section 2.4 are not fulfilled, Licensor may treat such failure as a breach in accordance with Section 7.3(b) and subject to the Special Provisions, 20.1.1 and 20.1.2 above.

3. Compensation

In consideration of rights granted to Licensee, Licensee will pay Licensor the following fees and royalties. All fees and royalties are not refundable and are not creditable against other fees and royalties. Each payment will reference the Patent License Agreement number and will be sent to Licensor's payment and accounting contact in Section 18 (Notices) of the Patent License Agreement.

3.1 Non-Royalty Payments due from Licensee

(a) *Patent Expenses.* Licensee will reimburse Licensor for the past patent expenses stated in Section 3.1(a) of the Patent License Agreement by [***] or by date Licensee contracts with third party for reimbursement of such expenses or Termination of this Agreement, whichever date occurs earlier. The stated amount is the current estimate for past patent expenses based on invoices received by the Licensor through the stated date. Licensee's obligations to pay all past and future patent expenses pursuant to Section 6 (Patent Expenses and Prosecution) will not be limited by such amount [***].

(b) *Milestone Fees.* Licensee will pay Milestone Fees indicated in Section 3.1(b) of the Patent License Agreement by the Quarterly Payment Deadline for the Contract Quarter in which the milestone events set forth in Section 3.1(b) of the Patent License Agreement are achieved. Notwithstanding anything to the contrary, each Milestone Fee is payable only once under this Agreement, with respect to the initial accomplishment thereof, regardless of the number of Licensed Products (or indications therefor) or the number of times such milestone may be achieved.

(c) *Scheduled License Fees.* Licensee will pay license fees in the amounts set forth in Sections 3.1(c) of the Patent License Agreement in accordance with the stated schedule.

(d) *Sublicense Fees.* Licensee will pay Sublicense Fees indicated in Section 3.1(d) of the Patent License Agreement on or before the Quarterly Payment Deadline for the Contract Quarter.

(e) *Assignment Fee.* Except as otherwise set forth in this section 3.1(e), in the event Licensee assigns this Patent License Agreement to a third party, Licensee will pay the Assignment Fee set forth in Section 3.1(e) of this Agreement within [***] of the effective date of such assignment. Notwithstanding the foregoing, an Assignment Fee shall not be due for assignments of this Patent License Agreement to an Affiliate of Kyn Therapeutics; provided, however; that if such Affiliate ceases to be an Affiliate of Kyn Therapeutics, then an Assignment Fee shall become due and payable to Licensor within [***] after such Affiliate ceases to be an Affiliate of Kyn Therapeutics. Assignments are further governed by Section 15 below.

3.2 Royalties

Licensee will pay a running royalty at the rate set forth in Section 3.2 of the Patent License Agreement on Net Product Sales in each Contract Quarter, payable on or before the Quarterly Payment Deadline for such Contract Quarter, subject to the following:

(a) No more than one royalty shall be paid to Licensor hereunder with respect to the Sale of any one unit of Licensed Product, whether or not more than one patent or Valid Claim is applicable to the Licensed Product, or the development, manufacture, or performance thereof,

(b) [***].

(c) Should a compulsory license be granted, or be the subject of a possible grant, to a third party under the applicable laws, rules, regulations, guidelines, or other directives of any Government in the Territory under the Patent Rights, the Party receiving notice thereof or otherwise becoming aware thereof shall promptly notify the other Party thereof, including any material information concerning such compulsory license, and the total amount payable under Section 3.2(a) with respect to sales of Licensed Products in such country will be adjusted to match any lower amount such third party may be allowed to pay with respect to the sales of such Licensed Products in such country, with such lower amount subject to further adjustments pursuant to Sections 3.2(b) above.

(d) Subject to any earlier termination of this Agreement, amounts due under Section 3.2(a) shall only be payable on a country-by-country and Licensed Product-by-Licensed Product basis for Licensed Products that are made or sold in a particular country for the period in which there is an existing Valid Claim of any Patent Right Covering such Product in such country, (such period for a particular Licensed Product in a particular country, the "Royalty Term" for such Product in such country)

3.3 Non-cash Consideration

If Licensee receives or anticipates receipt of non-cash consideration from Sales or Sublicenses, the manner in which Licensor will receive its compensation under the Agreement with respect to such non-cash consideration will be negotiated in good faith and timely agreed to by the Parties.

4. Reports and Plans

The reports specified in this Section 4 will be sent to Licensor's payment and reporting contact identified in Section 18 (Notices) of the Patent License Agreement.

4.1 Quarterly Payment and Milestone Reports

On or before each Quarterly Payment Deadline, Licensee will deliver to Licensor a true and accurate report, certified by an officer of Licensee, giving such particulars of the business conducted by Licensee, its Affiliates and its Sublicensees (including copies of reports provided by Sublicensees and Affiliates to Licensee) during the preceding Contract Quarter under the Agreement as necessary for Licensor to account for Licensee's payments hereunder, even if no payments are due. The reports shall continue to be delivered after the termination or expiration of the Agreement until such time as all Licensed Products permitted to be sold after termination or expiration have been sold or destroyed. Licensee shall provide information in sufficient detail to enable the royalties payable hereunder to be determined and to calculate all of the amounts payable under the Agreement. The report shall include:

(a) The name of the Licensee, the Patent License Agreement number, and the period covered by the report;

(b) The name of any Affiliates and Sublicensees whose activities are also covered by the report;

(c) Identification of each Licensed Product for which any royalty payments have become payable;

(d) Net Product Sales segregated on a product-by-product basis, and a country-by-country basis, or an affirmative statement that no Sales were made. The report shall also itemize the permitted deductions from the Gross Consideration used to arrive at the resulting Net Product Sales on a product-by-product and country by country basis;

(e) The applicable royalty rate;

(f) An affirmative statement of whether any milestones with deadlines in that Contract Quarter under Section 2.4 and any milestones under Section 3.1(b) were met or not, and the resulting Milestone Fee payable;

(g) Non-Royalty Sublicensing Consideration received by Licensee segregated on a Sublicense-by-Sublicense basis, or an affirmative statement that none was received;

(h) If any consideration was received in currencies other than U.S. dollars, the report shall describe the currency exchange calculations; and

(i) Any changes in accounting methodologies used to account for and calculate the items included in the report since the previous report.

4.2 Annual Written Progress Report and Commercialization Plan

Within [***] following the end of each Contract Year, Licensee will deliver to Licensor a true and accurate written progress report and commercialization plan, certified by an officer of Licensee, that summarizes (i) Licensee's efforts and accomplishments during the Contract Year to diligently commercialize Licensed Products, and (ii) Licensee's development and commercialization plans with respect to Licensed Products for the next Contract Year. The report shall also cover such activities by Affiliates and Sublicensees. The report shall contain the following information to the extent relevant to the activities under the Agreement:

(a) The name of the Licensee, the Patent License Agreement number, the names of any Affiliates and Sublicensees, and the products and services being developed and/or commercialized;

(b) The progress toward completing and the plans for completing the applicable milestone events pursuant to Sections 2.4 and 3.1(b);

(c) The research and development activities, including status and plans for obtaining any necessary governmental approvals, performed during the past year, and the plans for research and development activities for the next year; and

(d) The marketing activities for the past year and planned for the next year, and Licensee's internal estimate for Sales for the next year.

5. Payment, Records, and Audits

5.1 Payments

All amounts referred to in the Patent License Agreement are expressed in U.S. dollars without deductions for taxes, assessments, fees, or charges of any kind. Each payment will reference the agreement number set forth at the beginning of the Patent License Agreement. All payments to Licensor will be made in U.S. dollars by check or wire transfer (Licensee to pay all wire transfer fees) payable to the payee identified in Section 18 of the Patent License Agreement and sent to the payment and reporting contact in Section 18 (Notices) of the Patent License Agreement.

5.2 Sales Outside the U.S.

If any currency conversion shall be required in connection with the calculation of payments hereunder, such conversion shall be made using the rate used by Licensee for its financial reporting purposes in accordance with Generally Accepted Accounting Principles (or foreign equivalent) or, in the absence of such rate, using the average of the buying and selling exchange rate for conversion between the foreign currency and U.S. Dollars, for current transactions as reported in *The Wall Street Journal* on the last business days of the Contract Quarter to which such payment pertains. Licensee may not make any tax withholdings from payments to Licensor, but Licensor agrees to supply to Licensee, upon written request, appropriate evidence from appropriate U.S. governmental agencies showing that Licensor is a resident of the United States of America for purposes of the U.S. income tax laws and is tax-exempt under such income tax laws.

5.3 Late Payments

Amounts, undisputed in good faith, that are not paid when due will accrue a late charge from the due date until paid, at a rate equal to [***] per month (or the maximum allowed by law, if less).

5.4 Records

For a period of four years after the Contract Quarter to which the records pertain, Licensee agrees that it and its Affiliates and Sublicensees will each keep complete and accurate records of their Net Product Sales, Milestone Fees, and Non-Royalty Sublicensing Consideration in sufficient detail to enable such payments to be determined and audited.

5.5 Auditing

Licensee and its Affiliates will permit an independent certified public accountant or other auditor designated by Licensor and approved by Licensee (which approval shall not be unreasonably withheld or delayed),, at Licensor's expense, to examine books, ledgers, and records relating solely to amounts payable hereunder, during regular business hours, at Licensee's or its Affiliate's place of business, on at least [***] advance notice, to the extent necessary to verify any payment required under the Agreement. For each Sublicensee, Licensee shall obtain such audit rights for Licensor or itself. If Licensee

obtains such audit rights for itself, it will promptly conduct an audit of the Sublicensee's records upon Licensor's request and at Licensor's expense, and Licensee will furnish to Licensor a copy of the findings from such audit. No more than one audit of Licensee, each Affiliate, and each Sublicensee shall be conducted under this Section 5.5 in any calendar year. If any amounts due Licensor have been underpaid, then Licensee shall immediately pay Licensor the amount of such underpayment plus accrued interest due in accordance with Section 5.3. If the amount of underpayment is equal to or greater than 5% of the total amount due for the records so examined, Licensee will pay the cost of such audit. Such audits may, if mutually agreed upon in writing by Licensor and Licensee, consist of a self-audit conducted by Licensee at Licensor's expense and certified in writing by an authorized officer of Licensee. If the amounts due Licensor have been overpaid, the balance of overpayment shall be credited toward the next payment of monies owed Licensor. All information examined pursuant to this Section 5.5 shall be deemed to be the Confidential Information of the Licensee. Further, whenever Licensee and/or its Affiliates and Sublicensees has its books and records audited by an independent certified public accountant, Licensee and/or its Affiliates and Sublicensees will, within [***] of the conclusion of such audit, provide Licensor with a written statement of said auditor, setting forth the calculation of amounts due to Licensor over the time period audited, as determined from the books and records of the Licensee, Affiliate or Sublicensee; but said auditor does not need to give any audit opinion with said statement.

6. Patent Expenses and Prosecution

6.1 Patent Expenses

Licensee shall reimburse Licensor for all past documented, out-of-pocket expenses incurred by Licensor for filing, prosecuting, enforcing, defending and maintaining Patent Rights and related patent searches through the Effective Date of the Agreement, including those identified in Section 3.1(a) of the Patent License Agreement, and all such future expenses incurred by Licensor, for so long as, and in such countries as the Agreement remains in effect. Licensee will reimburse such Patent expenses, [***] after Licensee's receipt of an invoice, with such payment being made either directly to Prosecution Counsel or to Licensor, as elected by Licensor in writing on or before the date of the applicable invoice. Patent expense payment delinquencies (whether owed directly to Prosecution Counsel or to Licensor) that are not disputed in good faith will be considered a payment default under Section 7.3(a).

6.2 Direction of Prosecution

Licensor will apply for, prosecute, and maintain during the term of this Agreement, the Patent Rights in the United States and in the foreign countries listed in Schedule 6.2 hereto. Licensor will confer with Licensee to develop a strategy for the prosecution and maintenance of Patent Rights. Licensor will request that copies of all documents prepared by the Prosecution Counsel for submission to governmental patent offices be provided to Licensee for review and comment prior to filing, to the extent practicable under the circumstances. Licensee will be given reasonable opportunities to advise Licensor in the filing, prosecution, and maintenance of Patent Rights. At Licensee's request, and reasonably in advance of any filing, fee, or other action deadlines, Licensee shall be provided with copies of all prosecution documents relating to Patent Rights so that Licensee may have the opportunity to offer comments and remarks thereon, such comments and remarks to be given due consideration by Licensor. At its discretion, Licensor may allow Licensee to instruct Prosecution Counsel directly, provided, that (a)

Licensor will maintain final authority in all decisions regarding the prosecution and maintenance of the Patent Rights, (b) Licensor may revoke this authorization to instruct Prosecution Counsel directly at any time, and (c) the Prosecution Counsel remains counsel to the Licensor with an appropriate contract (and shall not jointly represent Licensee unless requested by Licensee and approved by Licensor, and an appropriate engagement letter and conflict waiver are in effect). If Licensee wishes to instruct Prosecution Counsel directly or change Prosecution Counsel, Licensee may request to do so by following the Licensor's procedures for such. Licensor reserves in its sole discretion the ability to change Prosecution Counsel and to approve or disapprove any requested changes by Licensee. The Parties agree that they share a common legal interest to get valid enforceable patents and that Licensee will maintain as privileged all information received pursuant to this Section.

6.3 Ownership

All patent applications and patents will be in the name of Licensor (and any co-owner identified in Section 1 of the Patent License Agreement) and owned by Licensor (and such co-owner, if any). No payments due under the Agreement will be reduced solely as the result of co-ownership interests in the Patent Rights by Licensee or any other party.

6.4 Additional Foreign Filings

If Licensee wishes to pursue patent protection in countries other than the U.S., and the foreign countries listed in Schedule 6.2 hereto, then (i) Licensee shall notify Licensor in writing, subject to applicable bar dates, of such foreign countries in sufficient time to reasonably enable the preparation of such additional filings, (ii) Licensor will apply for, prosecute, and maintain during the term of this Agreement, the Patent Rights in such foreign countries, and (iii) Schedule 6.2 shall be automatically amended to include such foreign countries. If Licensee notifies Licensor in writing that it does not choose to pursue patent rights in a particular foreign country and Licensor chooses to do so, Licensor shall so notify Licensee and thereafter said patent application or patent shall no longer be included in the Patent Rights and Licensee shall have no further rights thereto.

6.5 Withdrawal from Paying Patent Costs

If at any time Licensee wishes to cease paying for any costs for a particular Patent Right or for patent prosecution in a particular jurisdiction, Licensee must give Licensor at least [***] prior written notice and Licensee will continue to be obligated to pay for the patent costs which reasonably accrue during said notice period. Thereafter, said patent application or patent shall no longer be included in the Patent Rights and Licensee shall have no further rights thereto.

6.6 U.S. Patent and Trademark Office Entity Size Status

Licensee represents that as of the Effective Date the entity size status of Licensee in accordance with the regulations of the U.S. Patent and Trademark Office is as set forth in Section 1 of the Patent License Agreement. Licensee will inform Licensor in writing on a timely basis of any change in its U.S. Patent and Trademark Office entity size status.

7. Term and Termination

7.1 Term

Unless earlier terminated as provided herein, the term of the Agreement will commence on the Effective Date and continue on a country-by-country and Licensed Product-by-Licensed Product basis, until the expiration of the Royalty Term for a particular Licensed Product in a particular country (with the entire Agreement expiring on the expiration of the last-to-expire Royalty Term).

7.2 Termination by Licensee

Licensee, at its option, may terminate the Agreement by providing Licensor written notice of intent to terminate, which such termination effective will be [***] following receipt of such notice by Licensor.

7.3 Termination by Licensor

Licensor, at its option, may immediately terminate the Agreement, or any part of Patent Rights, or any part of Field, or any part of Territory, or the exclusive nature of the license grant, upon delivery of written notice to Licensee of Licensor's decision to terminate, if any of the following occur:

(a) Licensee becomes in arrears in any payments due under the Agreement, and Licensee fails to make the required payment within [***] after delivery of written notice from Licensor; or

(b) Licensee is in breach of any non-payment provision of the Agreement, and does not cure such breach within [***] after delivery of written notice from Licensor; or

(c) Licensor delivers notice to Licensee of three or more financial breaches of the Agreement in any [***] period, even in the event that Licensee cures such breaches in the allowed period, but only if such breach is undisputed in good faith.

(d) Licensee or its Affiliate or Sublicensee participates in any proceeding or action to challenge the validity, enforceability, or scope of one or more of the Patent Rights. Provided however, this section shall not be applicable in the context of a Sublicensee or Affiliate defending against a patent infringement suit initiated by Licensor, or if Licensee terminates a Sublicensee (in the event Sublicensee sues Licensor) within [***] of receiving notice from Licensor that Licensor is being sued by the Sublicensee.

7.4 Other Conditions of Termination

The Agreement will terminate:

(a) Immediately without the necessity of any action being taken by Licensor or Licensee, (i) if Licensee becomes bankrupt or insolvent, or (ii) Licensee's Board of Directors elects to liquidate its assets or dissolve its business or Licensee otherwise elects to cease business operations, other than in connection with a sale of substantially all assets, whether by merger sale or otherwise or (iii) Licensee makes an assignment for the benefit of creditors or (iv) if the business or assets of Licensee are otherwise placed in the hands of a receiver, assignee for the protection of creditors or trustee, whether by voluntary act of Licensee or otherwise; or

(b) At any time by mutual written agreement between Licensee and Licensor.

7.5 Effect of Termination

If the Agreement is terminated for any reason:

(a) If a Sublicensee is in good standing under its Sublicense Agreement without any uncured defaults that would otherwise have entitled the Licensee to terminate such Sublicense, the Sublicensee may request Licensor to grant a direct license to the Sublicensee on comparable terms; which request must be in writing and received by Licensor not later than [***] after any termination of the Agreement; If Licensor determines that the Sublicensee is well qualified to continue as a direct licensee, Licensor will not unreasonably withhold consent for such request; in which event, said Sublicensee and Licensor will enter into a new mutually approved, written license that will preserve all the applicable terms herein and rights of Licensor, to the extent practicable. For the avoidance of doubt, during the period between the termination of the Agreement and the date on which such a mutually approved written license agreement is consummated between the Sublicensee and Licensor, the Sublicense Agreement shall be deemed to continue with the Licensor directly. If no such mutually Approved written license agreement is consummated within [***] between the Sublicensee and Licensor, the Sublicense shall be deemed to be terminated.

Licensee shall cease making, having made, distributing, having distributed, using, selling, offering to sell, leasing, loaning and importing any Licensed Products by the effective date of termination; and

(b) Licensee shall tender payment of all accrued royalties and other payments due to Licensor in accordance with the payment terms hereof; and

(c) Nothing in the Agreement will be construed to release either Party from any obligation that matured prior to the effective date of termination; and

(d) The provisions of Sections 8 (Confidentiality), 9 (Infringement and Litigation), 11 (Representations and Disclaimers), 12 (Limit of Liability), 13 (Indemnification), 14 (Insurance), 17 (Use of Name), 18 (Notices), and 19 (General Provisions) will survive any termination or expiration of the Agreement. In addition, the provisions of Sections 3 (Compensation), 4.1 (Quarterly Payment and Milestone Reports), 5 (Payment, Records and Audits), and 6.1 (Patent Expenses) shall survive with respect to all activities and payment obligations accruing prior to the termination or expiration of the Agreement,

8. Confidentiality

8.1 Definition

"**Confidential Information**" means ail information that is of a confidential and proprietary nature to Licensor or Licensee and provided by one Party to the other Party under the Agreement.

8.2 Protection and Marking

Licensor and Licensee each agree that all Confidential Information disclosed in tangible form, and marked "confidential" and forwarded to one by the other, or if disclosed orally, is designated as confidential at the time of disclosure: (i) is to be held in strict confidence by the receiving Party, (ii) is to be used by and under authority of the receiving Party only as authorized in the Agreement, and (iii) shall not be disclosed by the receiving Party, its

agents or employees without the prior written consent of the disclosing Party or as authorized in the Agreement. Licensee has the right to use and disclose Confidential Information of Licensor reasonably in connection with the exercise of its rights under the Agreement, including without limitation disclosing to Affiliates, Sublicensees, potential investors, acquirers, and others on a need to know basis, if such Confidential Information is provided under conditions which reasonably protect the confidentiality thereof. Each Party's obligation of confidence hereunder includes, without limitation, using at least the same degree of care with the disclosing Party's Confidential Information as it uses to protect its own Confidential Information, but always at least a reasonable degree of care.

8.3 Confidentiality of Terms of Agreement

Each Party agrees not to disclose to any third party the terms of the Agreement without the prior written consent of the other Party hereto, except each Party may disclose the terms of the Agreement: (a) to advisors, actual or potential Sublicensees, acquirers or investors, and others on a need to know basis, in each case, under appropriate confidentiality obligations substantially similar to those of this Section 8; and (b) to the extent necessary to comply with applicable laws and court orders (including, without limitation, The Texas Public Information Act, as may be amended from time to time, other open records laws, decisions and rulings, and securities laws, regulations and guidance). If the Agreement is not for all fields of use, then Licensor may disclose the Field to other potential third party licensees. Notwithstanding the foregoing, the existence of the Agreement shall not be considered Confidential Information.

8.4 Disclosure Required by Court Order or Law

If the receiving Party is required to disclose Confidential Information of another Party hereto, or any terms of the Agreement, pursuant to the order or requirement of a court, administrative agency, or other governmental body or applicable law, the receiving Party may disclose such Confidential Information or terms to the extent required, provided that the receiving Party shall use reasonable efforts to provide the disclosing Party with reasonable advance notice thereof to enable the disclosing Party to seek a protective order and otherwise seek to prevent such disclosure. To the extent that Confidential Information so disclosed does not become part of the public domain by virtue of such disclosure, it shall remain Confidential Information protected pursuant to Section 8.

8.5 Copies

Each Party agrees not to copy or record any of the Confidential Information of the other Party, except as reasonably necessary to exercise its rights or perform its obligations under the Agreement, and for archival and legal purposes.

8.6 Continuing Obligations

Subject to the exclusions listed in Section 8.7, the Parties' confidentiality obligations under the Agreement will survive termination of the Agreement and will continue for a period of [***] thereafter.

8.7 Exclusions information shall not be considered Confidential Information of a disclosing Party under the Agreement to the extent that the receiving Party can establish by competent written proof that such information:

(a) Was in the public domain at the time of disclosure; or

(b) Later became part of the public domain through no act or omission of the recipient Party, its employees, agents, successors or assigns in breach of the Agreement; or

(c) Was lawfully disclosed to the recipient Party by a third party having the right to disclose it not under an obligation of confidentiality; or

(d) Was already known by the recipient Party at the time of disclosure; or

(e) Was independently developed by the recipient Party without use of the disclosing Party's Confidential Information.

8.8 Copyright Notice

The placement of a copyright notice on any Confidential Information will not be construed to mean that such information has been published and will not release the other Party from its obligation of confidentiality hereunder

9. Infringement and Litigation

9.1 Notification

If either Licensor's designated office for technology commercialization or Licensee becomes aware of any alleged, potential or actual infringement of Patent Rights, each Party shall promptly notify the other of such in writing. [***].

9.2 Enforcement Rights

With respect to any actual, potential, or alleged infringement of the Patent Rights, and to the extent permitted under applicable law, Licensee shall have the first and primary right, but not the obligation, to, at its expense, initiate, prosecute, and control any action or legal proceedings, and/or enter into a settlement, including any declaratory judgment action, with respect thereto[***]. If, [***], Licensee shall not have brought and shall not be diligently prosecuting an infringement or other action with respect to such actual, potential, or alleged infringement, then Licensor shall have the right, at its expense, to bring suit to enforce such Patent Rights against such actual, alleged, or potential infringer, at its own expense Prior to Licensor taking such action, Licensee will have the right to present to Licensor any reasonable strategic rationale for not taking such action to terminate such actual, potential, or alleged infringement or any strategies for proceeding against infringer. Licensor will consider in good faith Licensee's comments. However, Licensor at its sole discretion will determine whether to take action.

9.3 Litigation Control. The Party pursuing or controlling any action or defense under Section 9.2 (the "Controlling Party") shall be free to enter into a settlement, consent judgment, or other voluntary disposition of any such action or defense, provided, however, that [***].

9.4 Sharing Net Recovery. Any recovery or damages received by the Controlling Party with respect to the infringement of the rights to Licensor Patents granted under this Agreement, or in settlement of any matter subject to Section 9.2. shall (i) first be used to reimburse the Parties for unreimbursed reasonable, documented expenses (excluding, with respect to any costs or expenses incurred by Licensor, compensation of any employees or consultants of Licensor or any Affiliate thereof) incurred in connection with such action or settlement, and the remainder shall be split [***] to Controlling Party and [***] to Secondary Party Notwithstanding the foregoing, the Secondary Party, at its expense, shall have the right to be represented by counsel of its choice in any proceeding governed by this Section 9.2.

10. Export Compliance

Licensee understands that the Arms Export Control Act (AECA), including its implementing International Traffic In Arms Regulations (ITAR), and the Export Administration Act (EAA), including its Export Administration Regulations (EAR), are some (but not all) of the laws and regulations that comprise the U.S. export laws and regulations. Licensee further understands that the U.S. export laws and regulations include (but are not limited to): (a) ITAR and EAR product/service/data-specific requirements; (b) ITAR and EAR ultimate destination-specific requirements; (c) ITAR and EAR end user-specific requirements; (d) Foreign Corrupt Practices Act; and (e) anti-boycott laws and regulations. Licensee will comply with all then-current applicable export laws and regulations of the U.S. Government (and other applicable U.S. laws and regulations) pertaining to the Licensed Products (including any associated products, items, articles, computer software, media, services, technical data, and other information). Licensee certifies that it will not, directly or indirectly, export (including any deemed export), nor re-export (including any deemed re-export) the Licensed Products (including any associated products, items, articles, computer software, media, services, technical data, and other information) in violation of applicable U.S. laws and regulations. Licensee will include a provision in its agreements, substantially similar to this Section 10, with its Sublicensees, third party wholesalers and distributors, and physicians, hospitals or other healthcare providers who purchase a Licensed Product, requiring that these parties comply with all then-current applicable U.S. export laws and regulations and other applicable U.S. laws and regulations.

11. Representations and Disclaimers

11.1 Licensor Representations

Except for the rights, if any, of the United States Government as set forth in Section 11.2, Licensor represents and warrants to Licensee that to the knowledge of Licensor's designated office for technology commercialization (i) Licensor is the owner or agent of the entire right, title, and interest in and to Patent Rights (other than the right, title and interest of any joint owner identified in Section 1 of the Patent License Agreement), (ii) Licensor has the right to grant the licenses granted hereunder, (iii) Licensor has not knowingly granted and will not knowingly grant licenses or other rights under the Patent Rights that are in conflict with the terms and conditions in the Agreement.

11.2 United States Government Rights

Licensee understands that Patent Rights may have been developed under a funding agreement with United States Government and, if so, that United States Government may have certain rights relative thereto. The Agreement is made subject to the United States Government's rights under any such agreement and under any applicable United States Government law or regulation. To the extent that there is a conflict between any such agreement, such applicable law or regulation and the Agreement, the terms of such United States Government agreement, and applicable law or regulation, shall prevail. Licensee agrees that, to the extent required by U.S. laws and regulations, Licensed Products used or sold in the U.S. will be manufactured substantially in the U.S., unless a written waiver is obtained in advance from the U.S. Government.

11.3 Licensor Disclaimers

EXCEPT AS SPECIFICALLY SET FORTH IN SECTION 11.1, LICENSEE UNDERSTANDS AND AGREES THAT LICENSOR MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, AS TO THE LICENSED PRODUCTS OR LICENSED SERVICES, OR AS TO THE OPERABILITY OR FITNESS FOR ANY USE OR PARTICULAR PURPOSE, MERCHANTABILITY, SAFETY, EFFICACY, APPROVABILITY BY REGULATORY AUTHORITIES, TIME AND COST OF DEVELOPMENT, PATENTABILITY, AND/OR BREADTH OF PATENT RIGHTS. LICENSOR MAKES NO REPRESENTATION AS TO WHETHER ANY PATENT WITHIN PATENT RIGHTS IS VAUD, OR AS TO WHETHER THERE ARE ANY PATENTS NOW HELD, OR WHICH WILL BE HELD, BY OTHERS OR BY LICENSOR THAT MIGHT BE REQUIRED FOR USE OF PATENT RIGHTS IN FIELD. NOTHING IN THE AGREEMENT WILL BE CONSTRUED AS CONFERRING BY IMPLICATION, ESTOPPEL OR OTHERWISE ANY LICENSE OR RIGHTS TO ANY PATENTS OR TECHNOLOGY OF LICENSOR OTHER THAN THE PATENT RIGHTS, WHETHER SUCH PATENTS ARE DOMINANT OR SUBORDINATE TO THE PATENT RIGHTS. LICENSOR HAS NO OBLIGATION TO FURNISH TO LICENSEE ANY KNOW-HOW, TECHNOLOGY OR TECHNOLOGICAL INFORMATION.

11.4 Licensee Representation

By execution of the Agreement, Licensee represents, acknowledges, covenants and agrees (a) that Licensee has not been induced in any way by Licensor or its employees to enter into the Agreement, (b) that Licensee has been given an opportunity to conduct sufficient due diligence with respect to all items and issues pertaining to this Section 11 (Representations and Disclaimers) and all other matters pertaining to the Agreement; (c) that Licensee has adequate knowledge and expertise, or has utilized knowledgeable and expert consultants, to adequately conduct the due diligence, and (d) that Licensee accepts all risks inherent herein. Licensee represents that it is a duly organized, validly existing entity of the form indicated in Section 1 of the Patent License Agreement, and is in good standing under the laws of its jurisdiction of organization as indicated in Section 1 of the Patent License Agreement, and has all necessary corporate or other appropriate power and authority to execute, deliver and perform its obligations hereunder.

12. Limit of Liability

IN NO EVENT SHALL LICENSOR, THE UNIVERSITY SYSTEM IT GOVERNS, ITS MEMBER INSTITUTIONS, INVENTORS, REGENTS, OFFICERS, EMPLOYEES, STUDENTS, AGENTS OR AFFILIATED ENTERPRISES (COLLECTIVELY, “LICENSOR COVERED PARTIES”), BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL, EXEMPLARY, OR PUNITIVE DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS OR REVENUE) ARISING OUT OF OR IN CONNECTION WITH THE AGREEMENT, REGARDLESS OF WHETHER ANY SUCH PARTY KNOWS OR SHOULD KNOW OF THE POSSIBILITY OF SUCH DAMAGES. OTHER THAN FOR CLAIMS AGAINST LICENSEE FOR INDEMNIFICATION PROVIDED UNDER SECTION 13 WITH RESPECT TO THIRD PARTY CLAIMS, IN NO EVENT SHALL LICENSEE, ITS AFFILIATES OR SUBLICENSEES BE LIABLE TO LICENSOR COVERED PARTIES FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS OR REVENUE) ARISING OUT OF ORIN CONNECTION WITH THE AGREEMENT, REGARDLESS OF WHETHER LICENSEE KNOWS OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES.

13. Indemnification

13.1 Indemnification Obligation

Subject to Section 13.2, Licensee agrees to hold harmless, defend and indemnify Licensor, the university system it governs, its member institutions, its Regents, officers, employees, students and agents (the "Indemnified Parties", or an "Indemnified Party") from and against any liabilities, damages, causes of action, suits, judgments, liens, penalties, fines, losses, costs and expenses (including, without limitation, reasonable attorneys' fees and other expenses of litigation) (collectively "Liabilities") resulting from claims or demands brought by third parties against an Indemnified Party on account of any injury or death of persons, damage to property, or any other damage or loss arising out of or in connection with the exercise or practice by or under authority of Licensee, its Affiliates or their Sublicensees, or third party wholesalers or distributors, or physicians, hospitals or other healthcare providers who purchase a Licensed Product, of the rights granted hereunder.

13.2 Conditions of Indemnification

Licensee shall have no responsibility or obligation under Section 13.1 for any Liabilities to the extent caused by the gross negligence or willful misconduct of an Indemnified Party. Obligations to indemnify, and hold harmless under Section 13.1 are subject to: (a) to the extent authorized by the Texas Constitution and the laws of the State of Texas, and subject to the statutory duties of the Texas Attorney General, the Indemnified Party giving Licensee control of the defense and settlement of the claim and demand; and (b) to the extent authorized by the Texas Constitution and the laws of the State of Texas and subject to statutory duties of the Texas Attorney General, the Indemnified Party providing assistance reasonably requested by Licensee, at Licensee's expense.

14. Insurance

14.1 Insurance Requirements

Prior to any Licensed Product being used or sold (including for the purpose of obtaining regulatory approvals), by Licensee, an Affiliate, or by a Sublicensee, and for a period of five years after the Agreement expires or is terminated, Licensee shall, at its sole cost and expense, procure and maintain commercial general liability insurance or an equivalent program of self-insurance in commercially reasonable and appropriate amounts for the Licensed Product being used or sold. Licensee shall use commercially reasonable efforts to have Licensor named as an additional insured party. Such commercial general liability insurance shall provide, without limitation: (i) product liability coverage, once any Licensed Product is being used in humans; (ii) broad form contractual liability coverage for Licensee's indemnification under the Agreement; and (iii) coverage for litigation costs.

14.2 Evidence of Insurance and Notice of Changes

Upon request by Licensor, Licensee shall provide Licensor with written evidence of such insurance. Additionally, Licensee shall provide Licensor with written notice of at least [***] prior to Licensee cancelling, not renewing, or materially changing such insurance.

15. Assignment

The Agreement may not be assigned by Licensee without the prior written consent of Licensor, which consent will not be unreasonably withheld; [***]. For any permitted assignment to be effective, (a) the Licensee must be in good standing under this Agreement, (b) the Licensee must pay Licensor the assignment fee pursuant to Section 3.1(e) of the Agreement at or prior to the closing of such assignment, (c) the assignee must assume in writing all of Licensee's interests, rights, duties and obligations under the Agreement and agree to comply with all terms and conditions of the Agreement as if the assignee were an original Party to the Agreement, and (d) Licensee must provide written notice and provide additional details as reasonably requested by Licensor and a copy of the assignment to the Licensor of such assignment no less than [***] after completion of such assignment Any such assignment must be of all rights and obligations of Licensee, such that there is only one existing Licensee at any one time.

16. Governmental Markings

16.1 Patent Markings

Licensee agrees that all Licensed Products sold by Licensee, Affiliates, or Sublicensees will be legibly marked with the number of any applicable patent(s) licensed hereunder as part of the Patent Rights in accordance with each country's patent marking laws, including Title 35, U.S. Code, or if such marking is not practicable, shall so mark the accompanying outer box or product insert for Licensed Products accordingly.

16.2 Governmental Approvals and Marketing of Licensed Products

Licensee will be responsible for obtaining all necessary governmental approvals for the development, production, distribution, sale, and use of any Licensed Product, at Licensee's expense, including, without limitation, any safety studies. Licensee will have sole responsibility for any warning labels, packaging and instructions as to the use and the quality control for any Licensed Product.

16.3 Foreign Registration and Laws

Licensee agrees to register the Agreement with any foreign governmental agency that requires such registration; and Licensee will pay all costs and legal fees in connection with such registration. Licensee is responsible for compliance with all foreign laws affecting the Agreement or the sale of Licensed Products to the extent there is no conflict with United States law, in which case United States law will control.

17. Use of Name

Licensee will not use the name, trademarks or other marks of Licensor (or the name of the university system it governs, its member institutions, any of its Regents or employees) without the advance written consent of Licensor; provided however, in connection with describing the Agreement and its existence to prospective investors, lenders, acquirers, and Sublicensees, Licensee may identify Licensor's name as the Licensor. Licensor may use Licensee's name and logo for annual reports, brochures, website, and internal reports without prior consent of Licensee.

18. Notices

Any notice or other communication of the Parties required or permitted to be given or made under the Agreement will be in writing and will be deemed effective when sent in a manner that provides confirmation or acknowledgement of delivery and received at the address set forth in Section 18 of the Patent License Agreement (or as changed by written notice pursuant to this Section 18). Notices required under the Agreement may be delivered via E-mail provided such notice is confirmed in writing as indicated.

Notices shall be provided to each Party as specified in the "Contact for Notice" address set forth in Section 18 of the Patent License Agreement. Each Party shall update the other Party in writing with any changes in such contact information.

19. General Provisions

19.1 Binding Effect

The Agreement is binding upon and inures to the benefit of the Parties hereto, their respective executors, administrators, heirs, permitted assigns, and permitted successors in interest.

19.2 Construction of Agreement

Headings are included for convenience only and will not be used to construe the Agreement. The Parties acknowledge and agree that both Parties substantially participated in negotiating the provisions of the Agreement; therefore, both Parties agree that any ambiguity in the Agreement shall not be construed more favorably toward one Party than the other Party, regardless of which Party primarily drafted the Agreement.

19.3 Counterparts and Signatures

The Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. A Party may evidence its execution and delivery of the Agreement by transmission of a signed copy of the Agreement via facsimile or email.

19.4 Compliance with Laws

Licensee will comply with all applicable federal, state and local laws and regulations, including, without limitation, all export laws and regulations.

19.5 Governing Law

The Agreement will be construed and enforced in accordance with laws of the U.S. and the State of Texas, without regard to choice of law and conflicts of law principles.

19.6 Modification

Any modification of the Agreement will be effective only if it is in writing and signed by duly authorized representatives of both Parties. No modification will be made by email communications.

19.7 Severability

If any provision hereof is held to be invalid, illegal or unenforceable in any jurisdiction, the Parties hereto shall negotiate in good faith a valid, legal and enforceable substitute provision that most nearly reflects the original intent of the Parties, and all other provisions hereof shall remain in full force and effect in such jurisdiction and shall be construed in order to carry out the intentions of the Parties hereto as nearly as may be possible. Such invalidity, illegality or unenforceability shall not affect the validity, legality or enforceability of such other provisions in any other jurisdiction, so long as the essential essence of the Agreement remains enforceable.

19.8 Third Party Beneficiaries

Nothing in the Agreement, express or implied, is intended to confer any benefits, rights or remedies on any entity, other than the Parties and their permitted successors and assigns. However, if there is a joint owner of any Patent Rights identified in Section 1 of the Patent License Agreement (other than Licensee), then Licensee hereby agrees that the following provisions of these Terms and Conditions extend to the benefit of the co-owner identified therein (excluding the Licensee to the extent it is a co-owner) as if such co-owner was identified in each reference to the Licensor the retained rights under clause (b) of Section 2.1; Section 11.3 (Licensor Disclaimers); Section 12 (Limitation of Liability); Section 13 (Indemnification); Section 14.1 (Insurance Requirements); Section 17 (Use of Name); and Section 19.10 (Sovereign Immunity, if applicable).

19.9 Waiver

Neither Party will be deemed to have waived any of its rights under the Agreement unless the waiver is in writing and signed by such Party. No delay or omission of a Party in exercising or enforcing a right or remedy under the Agreement shall operate as a waiver thereof.

19.10 Sovereign Immunity

Nothing in the Agreement shall be deemed or treated as any waiver of Licensor's sovereign immunity.

19.11 Entire Agreement

The Agreement constitutes the entire Agreement between the Parties regarding the subject matter hereof, and supersedes all prior written or verbal agreements, representations and understandings relative to such matters.

19.12 Claims Against Licensor for Breach of Agreement

Licensee acknowledges that any claim for breach of the Agreement asserted by Licensee against Licensor shall be subject to Chapter 2260 of the Texas Government Code and that the process provided therein shall be Licensee's sole and exclusive process for seeking a remedy for any and all alleged breaches of the Agreement by Licensor or the State of Texas.

19.13 Grant of Security Interest

Licensee hereby grants to Licensor a security interest in and to Licensee's rights under the Patent License Agreement, as collateral security for the payment by Licensee of any and all sums which may be owed from time to time by Licensee to Licensor. Licensor shall have all rights of a secured party as specified in the Texas Uniform Commercial Code relative to this security interest and the enforcement thereof. Licensee hereby authorizes Licensor to file with the appropriate governmental agencies appropriate UCC-1 financing statements to evidence this security interest.

- END OF EXHIBIT A-

Schedule 6.2

Foreign Countries for Patent Filings

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT #1 TO PATENT LICENSE

This Amendment #1 to Patent License (as defined below) is made and entered into as of the date of last signature below ("Amendment Effective Date") by and between **Kyn Therapeutics, Inc**, a Delaware Limited Liability Corporation, with its principal place of business at 400 technology Square #10, Cambridge, MA 02139 ("**Licensee"**) and the **University of Texas at Austin**, on behalf of the Board of Regents of the University of Texas System, a not-for-profit organization and agency of the State of Texas, having its principal place of business at 2935 W. Braker Lane, Suite 1.9A (R3500), Austin, Texas 78759 ("**Licensor**"), each a "Party" and collectively, "Parties".

Background

A. Licensor and Licensee entered into a Patent License (UTA No. [***]) with an Effective Date of March 29th, 2015 ("PLA"). Capitalized terms used herein without definition shall have meanings given to them in the PLA.

B. Licensor and Licensee wish to amend the PLA as set forth below in order to (i) reflect Licensee's change of business name from Kyn Therapeutics, Texas LLC; (ii) update the list of Patent Rights; and (iii) other matters as set forth below.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the Parties hereby agree as follows:

1. In Section 1 of the PLA, the name of Licensee shall be deleted in its entirety and replaced by the following: Kyn Therapeutics, Inc, a Delaware Limited Liability Corporation, with its principal place of business at 400 technology Square #10, Cambridge, MA 02139.

2. In Section 1 of the PLA, the Patent Rights table should be deleted in its entirety and replaced with the following:

Patent Rights

App. No./ Date of Filing	Title	Inventor(s)	Jointly Owned? (Y/N; if Y, with whom?)	Prosecution Counsel
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]

USPTO Entity Status as of Effective Date	Check one box: X Small _ Large

3. In Section 18, the Contact Information table shall be deleted in its entirety and replaced with the following:

Contact for all:
Mark Manfredi, Ph.D.
Chief Scientific Officer
Kyn Therapeutics
400 Technology Square 10th Floor
Cambridge, MA 02139
[***]
Office: [***]
Cell: [***]

18. Contact Information

Licensee Contacts	**Licensor Contacts**
Contact for Notice: Attn: George Georgiou and/or Maryjean Dotis, Kyn Therapeutics, [***] Fax: [***] Phone: [***] E-mail: [***]	Contact for Notice: Attn: Contract Manager 3925 W. Braker lane, Suite 1.9A (R3SOO) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]
Accounting contact: Attn: Maryjean Dotis [***] Fax: [***] Phone: [***] E-mail: [***]	Payment and reporting contact: Checks payable to “The University of Texas at Austin” Attn: Accounting 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]
Patent prosecution contact: Attn: Maryjean Dotis [***] Fax: [***] Phone: [***] E-mail: [***]	Patent prosecution contact: Attn: Patents 3925 W. Braker lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]

1. Under Section 20 Special Provision, the following is hereby added:

20.3 If the Parties mutually determine that the rights granted by this License Agreement are essential to the Licensee's use of any University Invention arising under Sponsored Research Agreement [***] then such University Invention shall be included, to the extent legally allowable, in this License Agreement by amendment and upon Licensee's payment to Licensor of a fee of $[***].

IN WITNESS THEREOF, Licensor and Licensee have entered into this Amendment effective as of the Amendment Effective Date.

THE UNIVERSITY OF TEXAS AT AUSTIN
ON BEHALF OF THE BOARD OF REGENTS
OF THE UNIVERSITY OF TEXAS SYSTEM

By: /s/ Daniel W. Sharp
Daniel W. Sharp, J.D.
Associate Vice President for Research and
Director, Office of Technology
Commercialization

Date: 5/18/16

KYN THERAPEUTICS, INC

By: /s/ Mark Manfredi
Mark Manfredi
Chief Scientific Officer

Date: May 9, 2016

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT #2 TO PATENT LICENSE

This Amendment #2 to Patent License (as defined below) is made and entered into as of the date of the last signature below ("**Amendment Effective Date**") by and between **Kyn Therapeutics, Inc.**, a Delaware limited Liability Corporation, with its principal place of business at 400 Technology Square #10, Cambridge, MA 02139 ("**Licensee**") and the **University of Texas Austin**, on behalf of the Board of Regents of the University of Texas System, a not-for-profit organization and agency of the State of Texas, having its principal place of business at 2935 W. Braker Lane, suite 1.9A (R3500), Austin, Texas 78759 ("**Licensor**"), each a "Party" and collectively, "Parties".

Background

A. Licensor and Licensee entered into a Patent License (UTA No. [***]) with an Effective Date of March 29th, 2015 ("PLA") and Amendment #1 to the PLA with an Effective Date of May 18, 2016. Capitalized terms used herein without definition shall have meanings given to them in the PLA.

B. Licensor and Licensee wish to further amend the PLA in order to establish different terms regarding milestones and consideration payable to Licensor for Licensee's use of Licensor's intellectual property in cell therapy as distinguished from systemic therapy, and to address other matters as set forth below.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the Parties hereby agree as follows:

1. The following definitions shall be added to section 1 of Exhibit A of the PLA:
   a. "Cell Therapy Licensed Product" shall mean any Licensed Product that constitutes a cell transduced to express kynureninase.
   b. "Systemic Licensed Product" shall mean any Licensed Product other than a "Cell Therapy Licensed Product."
2. Section 2.4 of the PLA, Diligence Milestones, shall be deleted and replaced with the following:

2.4 Diligence Milestones

Milestones and deadlines

Milestone Events	Deadlines
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

3. Section 3.1(b) of the PLA shall be deleted in its entirety and replaced with the following:

The following Milestone fees are due and payable upon the achievement of certain Milestone Events as shown below. These Milestone fees are applicable to milestones in the development of a Systemic Licensed Product, but not a Cell Therapy Licensed Product. If the below Milestone Events and Fees are not reached for a Systemic Licensed Product, the Parties agree to negotiate in good faith to set appropriate milestone fees payable to Licensor for a Cell Therapy Licensed Product. But such fees for the achievement of milestone events for a Cell Therapy Licensed Product shall not exceed the amounts set forth below for similar Systemic Licensed Product Milestone Events (for example, a milestone fee for commencing a Phase 1 clinical trial for a Cell Therapy Licensed Product would not exceed $[***]).

Milestone fees

Milestone Events	Milestone Fees
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

4. The chart set forth in section 3.l(d) of the PLA titled “Non-Royalty Sublicense Consideration Paid to Licensor (excluding funds for R&D)” shall be deleted and replaced with the following:

3.1(d)	Non-Royalty Sublicense Consideration paid to Licensor (excluding funds for R&D)	The following applies to Sublicense Agreements for Systemic Licensed Products: [***] For Cell Therapy Licensed Products, the following rates apply: [***]

5. Section 3.2 of the PLA is deleted in its entirety and replaced with the following:

3.2	**Running royalty rate**	Net Product Sales of Systemic Licensed Products by Licensee, Affiliates and Sublicensees: [***]% Net Product Sales of Cell Therapy Licensed Products by Licensee and Affiliates: [***]% Sales of Cell Therapy Licensed Products by Sublicensees: [***]% of Sublicense Agreement royalty rate, but no less than [***]% of Sublicensees's Net Product Sales, notwithstanding the provisions of Section 3.2(b) of Exhibit A. For clarity, Licensee shall pay Licensor [***]% of the royalty rate set forth in each Sublicense Agreement for Cell Therapy Licensed Products, unless such amount, including after application of any reduction resulting from Section 3.2(b) of Exhibit A, is less than [***]% of Sublicensee's Net Product Sales, in which case Licensee shall pay Licensor a [***]% royalty on Sublicensee's Net Product Sales, with no further reduction under the provisions of Section 3.2(b) of Exhibit A.

6. Section 2.1(b)(2) of Exhibit A of the PLA Is deleted in its entirety and replaced with the following:

(2) Manufacture, have manufactured, and use the Patent Rights for not-for profit purposes including teaching, research, education, and other educationally-related purposes; and

IN WITNESS THEREOF, Licensor and Licensee have entered into this Amendment effective as of the Amendment Effective Date.

THE UNIVERSITY OF TEXAS AUSTIN ON BEHALF OF THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM

By: /s/ Daniel W. Sharp
Daniel W. Sharp, J.D.
Associate Vice President for Research and Director, Office of Technology Commercialization

Date: 12/15/2016

KYN THERAPEUTICS, INC.

By: /s/ Mark Manfredi
Mark Manfredi
Chief Scientific Officer

Date: December 6, 2016

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT #3 TO PATENT LICENSE AGREEMENT

This Amendment #3 to the Patent License Agreement ("Amendment") is made and entered into as of the date of the last signature below ("Amendment Effective Date") by and between Kyn Therapeutics, Inc., a Delaware Limited Liability Corporation, with its principal place of business at 400 Technology Square #10, Cambridge, MA 02139, ("Licensee") and the University of Texas Austin, on behalf of the Board of Regents of the University of Texas System, an agency of the State of Texas, having its principal place of business at 3925 West Braker Lane, Suite 1.9A (R3500), Austin, Texas 78759 ("Licensor"), each a "Party" and collectively, "Parties".

Background

A. Licensor and Licensee entered into a Patent License (UTA No. [***]) with an Effective Date of March 29th, 2015, Amendment #1 to the PLA with an Effective Date of May 18, 2016, and Amendment #2 to the PLA with an Effective Date of December 15, 2016 (collectively the "PLA"). Capitalized terms used herein without definition shall have meanings given to them in the PLA.

B. Licensor and Licensee wish to further amend the PLA in order to change the contact information for Licensee.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the Parties hereby agree as follows:

1. The reference to Licensor as a "not for profit organization" shall be redacted from all documents.

2. In Section 18, the Contact Information table shall be deleted in its entirety and replaced with the following updated table:

18. Contact Information

Licensee Contacts	Licensor Contacts
Contact for Notice: Attn: Mark Manfredi, Ph.D. Chief Scientific Officer Kyn Therapeutics 1030 Massachusetts Ave, Suite 400 Cambridge, MA 02138 Cell: [***] E-mail: [***]	Contact for Notice: Attn: Contract Manager 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]
Accounting contact: Attn: Accounts Payable Kyn Therapeutics 1030 Massachusetts Ave, Suite 400 Cambridge, MA 02138 E-mail: [***]	Payment and reporting contact: Checks payable to "The University of Texas at Austin" Attn: Accounting/Compliance 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]
Patent prosecution contact: Attn: Mark Manfredi, Ph.D. Chief Scientific Officer Kyn Therapeutics 1030 Massachusetts Ave, Suite 400 Cambridge, MA 02138 Cell: [***] E-mail: [***]	Patent prosecution contact: Attn: Patents 3925 W. Braker Lane, Suite 1.9A (R3500) Austin, TX 78759 Fax: [***] Phone: [***] E-mail: [***]

3. Agreement in Full Force and Effect. Except as expressly provided in this Amendment, all other terms, conditions and provisions of the Patent License Agreement shall continue in full force and effect as provided therein.

IN WITNESS WHEREOF, the Board and Licensee have entered into this Amendment effective as of the date first set forth above.

THE UNIVERSITY OF TEXAS AT AUSTIN ON BEHALF OF THE BOARD OF REGENTS OF TH UNIVERSITY OF TEXAS SYSTEM

By: /s/ Daniel W. Sharp
Daniel W. Sharp, J.D.
Associate Vice President for Research and Director, Office of Technology Commercialization

Date: 10/8/17

KYN THERAPEUTICS, INC.

By: /s/ Mark Manfredi
Mark Manfredi
Chief Scientific Officer

Date: 10/24/2017

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT #4 TO PATENT LICENSE AGREEMENT

This Amendment #4 to the Patent License Agreement ("Amendment") is made and entered into as of the date of the last signature below ("Amendment Effective Date") by and between Kyn Therapeutics, Inc., a Delaware Limited Liability Corporation, with its principal place of business at 400 Technology Square #10, Cambridge, MA 02139, ("Licensee") and the University of Texas Austin, on behalf of the Board of Regents of the University of Texas System, an agency of the State of Texas, having its principal place of business at 3925 West Braker Lane, Suite 1.9A (R3500), Austin, Texas 78759 ("Licensor"), each a "Party" and collectively, "Parties".

Background

A. The Parties entered into a Patent License Agreement (UTA Agreement No. [***]) with an Effective Date of March 29th, 2015 as amended (the "Patent License Agreement"). Capitalized terms used herein without definition shall have meanings given to them in the Patent License Agreement.

B. The Parties now wish to amend the Patent License Agreement as set forth below.

NOW, THEREFORE, it is hereby agreed as follows:

1. Patent Rights. In Section 1 of the PLA, the Patent Rights, will now also include the following:

Patent Rights

App. No./ Date of Filing	Title	Inventor(s)	Jointly Owned? (Y/N; if Y, with whom?)	Prosecution Counsel
[***]	[***]	[***]	[***]	[***]

2. Agreement in Full Force and Effect. Except as expressly provided in this Amendment, all other terms, conditions and provisions of the Patent License Agreement shall continue in full force and effect as provided therein.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Parties have entered into this Amendment effective as of the date of last signature below.

THE UNIVERSITY OF TEXAS AT AUSTIN ON BEHALF OF THE B RD OF REGENTS OF THE UNIVERSITY TEXAS SYSTEM

By: /s/ Daniel W. Sharp
Daniel W. Sharp J.D.
Associate Vice President for Research and Director, Office of Technology Commercialization

Date: 4/20/18

KYN THERAPEUTICS, INC.

By: /s/ Mark Manfredi
Mark Manfredi
Chief Scientific Office

Date: 4/25/2018

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT #5 TO PATENT LICENSE AGREEMENT

This Amendment #5 to the Patent License Agreement (this "**Amendment**") is made and entered into as of the date of the last signature below by and between Kyn Therapeutics, Inc., a Delaware corporation, with its principal place of business at 50 Northern Avenue Boston, MA 02210 ("**Licensee**") and the University of Texas Austin, on behalf of the Board of Regents of the University of Texas System, an agency of the State of Texas, having its principal place of business at 3925 West Braker Lane, Suite 1.9A (R3500), Austin, Texas 78759 ("**Licensor**"). Licensee and Licensor may each be referred to as a "**Party**" and collectively as, the "**Parties**." Capitalized terms used herein without definition shall have the meanings given to them in the Patent License Agreement (as defined below).

Background

WHEREAS, Licensor and Licensee entered into that certain Patent License Agreement (UTA Agreement No. [***]), effective as of March 29, 2015 (as amended, the "**Patent License Agreement**"); and

WHEREAS, the Parties wish to amend and update certain aspects of the Patent License Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and obligations set forth in this Amendment and other good and valuable consideration, the sufficiency of which are acknowledged, the Parties agree as follows:

1. The following defined term shall be added to Section 1 of the Terms and Conditions set forth on Exhibit A of the Patent License Agreement:

"**Direct License**" has the meaning set forth in Section 7.5(a) of these Terms and Conditions.

2. Section 2.3(a) of the Terms and Conditions set forth on Exhibit A of the Patent License Agreement shall be deleted in its entirety and replaced with the following:

(a) A Sublicense Agreement shall not exceed the rights granted to Licensee hereunder. Sublicensee must agree in writing to be bound by the applicable terms and conditions of the Agreement that are consistent with, no less protective of Licensor's rights than, and does not conflict with, the terms of this Agreement, and shall indicate that Licensor is a third party beneficiary and entitled to enforce the terms and conditions of the Sublicense Agreement applicable to the Agreement. Each Sublicense Agreement shall be granted for commercially reasonable consideration. In the event of a termination of the Agreement, continued sublicense rights shall be governed by Section 7.5(a) (Effect of Termination). [***].

3. Section 2.4 of the Terms and Conditions set forth on Exhibit A of the Patent License Agreement shall be deleted in its entirety and replaced with the following:

2.4 Diligent Commercialization

Licensee by itself or through its Affiliates and Sublicensees will use Commercially Reasonable Efforts to research, develop and commercialize at least one Licensed Product in the Field in the Territory. Without limiting the foregoing, Licensee will fulfill the milestone events specified in Section 2.4 of the Patent License Agreement by the deadlines indicated therein and use diligent and commercially reasonable efforts to perform and complete the plans described in the annual report submitted pursuant to Section 4.2 (Annual Written Progress Report). Licensor hereby agrees that the efforts of Sublicensees, Affiliates, and any third party contractors shall be deemed the acts of Licensee for purposes of satisfying this Section 2.4, and for the purposes of fees due under Section 3.l(b) of the Patent License Agreement. [***].

4. Section 7.5(a) of the Terms and Conditions set forth on Exhibit A of the Patent License Agreement shall be deleted in its entirety and replaced with the following:

(a) If a Sublicensee is in good standing under its Sublicense Agreement without any uncured defaults that would otherwise have entitled the Licensee to terminate such Sublicense Agreement, then at Sublicensee's request, Licensor shall automatically grant a direct license to the Sublicensee on comparable terms and conditions as those in such Sublicense Agreement (a "**Direct License**") without any further consent or negotiation with Licensor being required. Such Direct License shall be subject to the same terms and conditions as those in such Sublicense Agreement at such time, including but not limited to scope, licensed territory, duration of license grant, and diligence obligations, in each case to the extent that such terms and conditions are not in conflict with the terms of this Patent License Agreement immediately prior to its termination or applicable federal, state or local laws or regulations; provided, however, that under the Direct License, Sublicensee shall be required to make the same monetary payment(s) to Licensor that, had this Patent License Agreement not terminated, Licensee would have been required to make to Licensor hereunder to the extent any such monetary payment(s) arises as a result of the activities of Sublicensee, its Affiliates or its further sublicensees. In no event shall Licensor have any obligations to Sublicensee other than Licensor's obligations to Licensee as set forth in this Patent License Agreement immediately prior to its termination. Promptly, and as soon as practicable following such termination, Licensor and Sublicensee shall execute a written license agreement memorializing the terms of the Direct License, which written agreement shall be fully consistent with this Section 7.5(a) and the applicable Sublicense Agreement;

Agreement in Full Force and Effect. The Parties agree that the Patent License Agreement shall be amended as set forth herein [***]. Upon its effectiveness, this Amendment shall become part of and incorporated into the Patent License Agreement. Except as expressly provided in this Amendment, all other terms, conditions and provisions of the Patent License Agreement shall continue in full force and effect as provided therein.

5. Governing Law. This Amendment will be construed and enforced in accordance with laws of the U.S. and the State of Texas, without regard to choice of law and conflicts of law principles.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties hereto have entered into this Amendment effective as of the Amendment Effective Date.

THE UNIVERSITY OF TEXAS AT AUSTIN ON BEHALF OF THE BOARD OF REGENTS OF THE UNIVERSITY OF

By: /s/ Les Nichols
Les Nichols
Interim Director
Office of Technology of Commercialization

Date: 1/9/2019

KYN THERAPEUTICS, INC.

By: /s/ Mark Manfredi
Mark Manfredi
Chief Executive Officer

Date: 1/9/2019