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As confidentially submitted to the Securities and Exchange Commission on May 8, 2020

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

INOZYME PHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**38-4024528**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

321 Summer Street
Suite 400
Boston, Massachusetts 02210
(857) 330-4340
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Axel Bolte
President and Chief Executive Officer
321 Summer Street
Suite 400
Boston, Massachusetts 02210
(857) 330-4340
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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New York, New York 10022
Telephone: (212) 848-4000

Approximate date of commencement of proposed sale to public:

As soon as practicable after this Registration Statement is declared effective.

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, 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, 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, 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 in 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)**	**Amount of Registration Fee(2)**
Common stock, par value $0.0001 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) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

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 which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the 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 prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus dated , 2020

PROSPECTUS

Shares

Common Stock

This is Inozyme Pharma, Inc.'s initial public offering. We are selling shares of our common stock.

We expect the public offering price to be between $ and $ per share. Currently, no public market exists for the shares. After pricing of the offering, we expect that the shares will trade on the Nasdaq Global Market under the symbol ''INZY.''

We are an emerging growth company under the federal securities laws and are subject to reduced public company disclosure standards. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Investing in the common stock involves risks that are described in the "Risk Factors" section beginning on page 12 of this prospectus.

	Per Share	Total
Public offering price	$	$
Underwriting discount(1)	$	$
Proceeds, before expenses, to us	$	$

(1) We refer you to "Underwriting" beginning on page 200 of this prospectus for additional information regarding underwriting compensation.

The underwriters may also exercise their option to purchase up to an additional shares from us, at the public offering price, less the underwriting discount, for 30 days after the date of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares will be ready for delivery on or about , 2020.

Joint Book-Running Managers

BofA Securities **Cowen** **Piper Sandler**

Lead Manager

Wedbush PacGrow

The date of this prospectus is , 2020.

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Neither we nor the underwriters have authorized anyone to provide you with any information other than that contained in this prospectus, any amendment or supplement to this prospectus or in any free writing prospectus we may authorize to be delivered or made available to 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. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus 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 our common stock and the distribution of this prospectus outside the United States.

We own or have rights to, or have applied for, trademarks, service marks and trade names that we use in connection with the operation of our business, including our corporate name, logos and website names. Other trademarks, service marks and trade names appearing in this prospectus are the property of their respective owners. Solely for convenience, some of the trademarks, service marks and trade names referred to in this prospectus are listed without the ® and ™ symbols.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the sections titled "Risk Factors," "Cautionary Note Regarding Forward-Looking Statements and Industry Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes appearing at the end of this prospectus, before making an investment decision.

Company Overview

We are a rare disease biopharmaceutical company developing novel therapeutics for the treatment of diseases of abnormal mineralization impacting the vasculature, soft tissue and skeleton. Through our in-depth understanding of the biological pathways involved in mineralization, we are pursuing the development of potentially first-in-class therapeutics to address the underlying causes of these debilitating diseases. It is well established that two genes, ENPP1 and ABCC6, play key roles in a critical mineralization pathway and that defects in these genes lead to abnormal mineralization. We are initially focused on developing a novel therapy to treat the rare genetic diseases of ENPP1 and ABCC6 deficiencies.

Our lead product candidate, INZ-701, is a soluble, recombinant, or genetically engineered, fusion protein that is designed to correct a defect in the mineralization pathway caused by ENPP1 and ABCC6 deficiencies. This pathway is central to the regulation of calcium deposition throughout the body and is further associated with neointimal proliferation, or the overgrowth of smooth muscle cells inside blood vessels. We have generated robust preclinical proof of concept data demonstrating that in animal models INZ-701 prevented pathological calcification, led to improvements in overall health and survival and prevented neointimal proliferation. We plan to file both an Investigational New Drug Application, or IND, with the U.S. Food and Drug Administration, or FDA, and a Clinical Trial Authorization, or CTA, with regulatory authorities in Europe for INZ-701 in . We plan to advance INZ-701 into two separate Phase 1/2 clinical trials, one in patients with ENPP1 deficiency and another in patients with ABCC6 deficiency. The FDA and the European Medicines Agency, or EMA, have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency. Beyond our development focus on INZ-701, we believe that our therapeutic approach has the potential to benefit patients suffering from additional diseases of abnormal mineralization, including those without a clear genetic basis.

Pathological Diseases of Abnormal Mineralization

Mineralization is a biological process during which an organism deposits calcium salt crystals, typically calcium polyphosphates, onto an organic extracellular matrix that gives rise to essential structures, such as bone and teeth in humans. A metabolic pathway that has been conserved throughout evolution in higher organisms is the key to regulating mineralization in the human body. Multiple enzymes and other proteins perform sequential reactions in this pathway as part of a normal mineralization process.

In a properly functioning mineralization pathway, the protein encoded by the ABCC6 gene (ATP-Binding Cassette in the C6 family) located on the cellular membrane is responsible for transporting adenosine triphosphate, or ATP, from inside a cell to outside the cell. The enzyme encoded by the ENPP1 gene (ectonucleotide pyrophosphatase/phosphodiesterase 1) then cleaves ATP into pyrophosphate, or PPi, and adenosine monophosphate, or AMP. PPi is a potent regulator of mineralization and, in particular, controls the rate of calcium crystal deposition in bone. AMP is further metabolized into adenosine, a potent regulator of cellular proliferation that, in particular, modulates a blood vessel's response to injury and is responsible for preventing neointimal proliferation.

If the proper function of the key mineralization pathway is altered or disturbed, then both genetic and non-genetic diseases and conditions involving abnormal mineralization can result. Genetic mutations affecting ENPP1, a critical enzyme in the mineralization pathway, result in low levels of PPi and AMP, a precursor of adenosine. Genetic mutations affecting ABCC6, a critical protein in the mineralization pathway, decrease the availability of extracellular ATP required for proper ENPP1 function and give rise indirectly to low levels of PPi and AMP, a precursor of adenosine.

Low levels of PPi lead to abnormal mineralization and pathological calcification in areas of the body where it should not occur, referred to as ectopic calcification. This ectopic calcification occurs in the vasculature and soft tissue, including multiple organ systems, and results in disease. The heart, kidney and skin are especially vulnerable to the effects of abnormal mineralization and pathological, ectopic calcification. Pathological, ectopic calcification in blood vessels inside bones can also interfere with normal skeletal mineralization. Low levels of adenosine lead to the narrowing and obstruction of blood vessels caused by neointimal proliferation and potential development of cardiovascular disease.

ENPP1 and ABCC6 deficiencies are systemic, progressive and continuous diseases occurring over the course of a patient's lifetime, starting as early as in fetal development and spanning into adulthood. These diseases represent a significant unmet medical need, with high mortality rates for infants with ENPP1 deficiency and high levels of morbidity occurring for patients with these diseases throughout their life. ENPP1 deficiency is estimated to occur in approximately one in 200,000 births, and we believe there are between 11,000 and 12,000 patients worldwide with ENPP1 deficiency. ABCC6 deficiency is estimated to afflict approximately one per 50,000 individuals, and we believe there are more than 67,000 patients worldwide with ABCC6 deficiency. There are currently no approved therapies for ENPP1 or ABCC6 deficiency. Currently available treatments are only palliative, seeking to minimize the symptoms of these diseases.

We conducted what we believe is the largest retrospective, cross-sectional natural history study of 127 patients with a presumed diagnosis of ENPP1 deficiency. Preliminary results from this study suggest that the spectrum of manifestations for ENPP1 deficiency includes an infantile phase, a pediatric phase and an adult phase. Infants with ENPP1 deficiency have pathological vascular calcification, which has been referred to in the medical literature as generalized arterial calcification of infancy, or GACI, in which abnormal mineralization and neointimal proliferation result in narrowed blood vessels that can cause heart and kidney failure. Approximately 45% to 50% of infants with ENPP1 deficiency die within 12 months of birth. Children with ENPP1 deficiency who survive beyond infancy develop rickets, which has been referred to in the medical literature as autosomal-recessive hypophosphatemic rickets type 2, or ARHR2. Rickets leads to severe skeletal deformities, short stature, severe bone pain and increased bone fractures. These children also experience continuing vascular and organ calcification. In adults, in addition to further vascular and organ calcification, ENPP1 deficiency manifests as a condition referred to as osteomalacia. Osteomalacia leads to severe bone pain, fatigue, muscle weakness and risk of recurring bone fractures. We plan to conduct a prospective, longitudinal natural history study of patients with ENPP1 deficiency designed to test and validate our findings from the retrospective natural history study.

ABCC6 deficiency is associated with pathological mineralization in blood vessels and soft tissues throughout the body resulting in significant morbidity, including blindness, potentially life-threatening cardiovascular complications and skin calcification. Some infants with ABCC6 deficiency are diagnosed with a vascular calcification condition resembling the acute infantile form of ENPP1 deficiency. In older patients, ABCC6 deficiency presents as pseudoxanthoma elasticum, or PXE, a rare disorder in which individuals develop calcification of soft connective tissues, including in the eyes, cardiovascular system and skin.

Our Solution: INZ-701

INZ-701 is a soluble, recombinant protein containing the extracellular domain of native human ENPP1 fused to the Fc domain, or crystallizable fragment, of the immunoglobulin IgG1. In its native form, ENPP1 is a

transmembrane enzyme with a modular structure consisting of a short intracellular domain, a single transmembrane domain and an extracellular domain that contains a conserved catalytic site responsible for enzymatic activity. ENPP1 is expressed predominantly in the liver and, to a lesser extent, in the kidney and bone. INZ-701 contains the extracellular soluble domain of ENPP1 fused to the Fc domain of IgG1 to minimize immunogenicity, stabilize the construct, increase the plasma half-life and allow ease of purification.

INZ-701 is designed to replace the lost enzymatic function of genetically deficient ENPP1 by restoring the normal balance in PPi and adenosine for ENPP1 deficiency and providing therapeutic effect to treat other diseases, like ABCC6 deficiency, involving low PPi levels. In contrast to native ENPP1, INZ-701 is a soluble protein that is designed to circulate throughout the body and access extracellular ATP and other nucleotide proteins. Like native ENPP1, INZ-701 cleaves ATP into PPi and AMP, a precursor of adenosine. Pharmacologically, INZ-701 is designed to have prolonged distribution and elimination phases, leading to steady-state concentrations in the blood over time and making dosing possible at infrequent intervals, potentially as long as weekly. INZ-701 is formulated for subcutaneous delivery.

In our preclinical studies conducted in ENPP1-deficient mouse models, dosing with INZ-701 resulted in increased plasma PPi levels, reduction in ectopic calcium deposits in a variety of tissues, prevention of calcification in the heart and aorta, and improvements in overall health and survival. In ABCC6-deficient mouse models, dosing with INZ-701 also increased plasma PPi levels. Further, overexpressing ENPP1 in an ABCC6-deficient mouse model reduced calcification in key tissues. In addition to normalizing levels of PPi, in preclinical studies, INZ-701 prevented neointimal proliferation in both wild-type and ENPP1-deficient mice, which we believe is attributable to increased levels of adenosine. The nonclinical INZ-701 toxicology studies that we conducted in two animal species showed no systemic adverse effects at doses that significantly exceeded potential human doses.

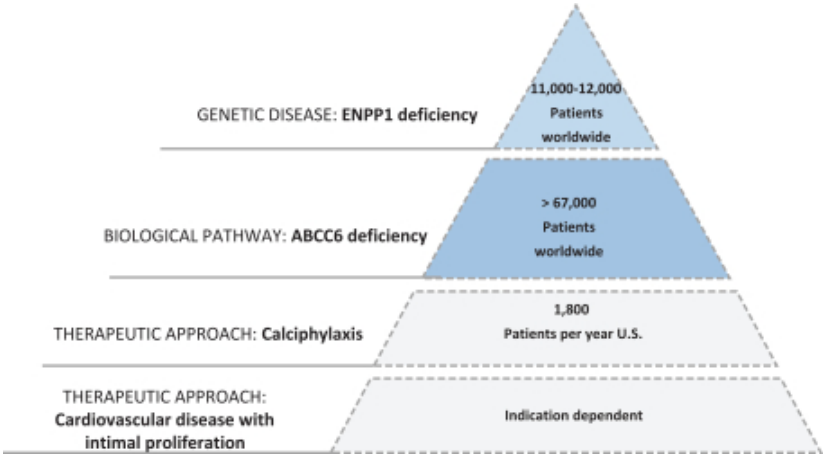
We plan to file an IND with the FDA for INZ-701 in to allow us to initiate clinical development. Subject to our IND becoming effective, we plan to conduct a Phase 1/2 clinical trial of INZ-701 designed as an open-label, dose-escalation trial in adult patients with ENPP1 deficiency. We plan to file a CTA with the regulatory authorities in Europe for INZ-701 in to allow us to initiate clinical development. Subject to our CTA becoming effective, we plan to conduct a Phase 1/2 clinical trial of INZ-701 designed as an open-label, dose-escalation trial in adult patients with ABCC6 deficiency. Our Phase 1/2 clinical trials will primarily investigate the safety and tolerability of INZ-701 and characterize its pharmacokinetic and pharmacodynamic profile, including plasma PPi levels, to establish a recommended dosing regimen for the applicable indication.

If a safe dose is identified for further development, we plan to conduct Phase 2/3 clinical trials of INZ-701 in adult, infant and pediatric patient populations with ENPP1 deficiency and a Phase 2/3 clinical trial of INZ-701 in adults with ABCC6 deficiency. Prior to initiating Phase 2/3 clinical trials for either ENPP1 deficiency or ABCC6 deficiency, we plan to engage with the regulatory authorities in the United States, Europe and other jurisdictions to determine appropriate primary efficacy endpoints and other requirements for potential marketing approval. We intend to design any such Phase 2/3 clinical trials as pivotal trials for registrational purposes.

Beyond ENPP1 and ABCC6 deficiencies, we believe that INZ-701 has the potential to provide therapeutic benefit to patients suffering from additional diseases of abnormal mineralization related to low PPi levels and diseases of neointimal proliferation related to low levels of adenosine, including diseases without a clear genetic basis. For example, calciphylaxis, a manifestation of chronic kidney disease, or CKD, may represent a particularly attractive area for drug development for abnormal mineralization. Calciphylaxis is characterized by pathological calcification of the vasculature in the skin and fat leading to blood clots and skin ulcers, likely as a result of low PPi levels. There are currently no approved therapies for calciphylaxis, and the

condition has a reported one-year survival rate of approximately 50%. As a science-driven company, we also plan to continue to apply our expertise to identify and develop new therapeutics for diseases of abnormal mineralization. For example, we are currently exploring the potential for development of a gene therapy for ENPP1 deficiency.

Our Goal is to Expand Our Product Candidates Into Multiple Indications



Pipeline

We hold development and commercialization rights to our pipeline and programs, including INZ-701, on a worldwide basis. Our current development programs are protected through exclusive intellectual property rights, including with filed and issued patents covering composition of matter for ENPP1-Fc fusion proteins, including INZ-701, and methods of treatment. We obtained an exclusive, worldwide license to our foundational intellectual property rights from Yale University in January 2017.

PROGRAM/INDICATION	STAGE OF DEVELOPMENT			
	Research/Exploratory	IND Enabling	Phase 1/2	Phase 2/3
GENETIC DISEASES				
INZ-701 (ENPP1-Fc) *ENPP1 Deficiency [Adults]*				
INZ-701 (ENPP1-Fc) *ENPP1 Deficiency [Children]*				
INZ-701 (ENPP1-Fc) *ABCC6 Deficiency [Adults]*				
ADDITIONAL DISEASES				
INZ-701 (ENPP1-Fc) *Calciphylaxis*				
INZ-701 (ENPP1-Fc) *Diseases of Neointimal Proliferation*				

Strategy

Our goal is to develop and commercialize safe and effective therapies for the treatment of patients suffering from a broad range of genetic and non-genetic diseases of abnormal mineralization. The critical components of our strategy to achieve this goal include:

- Efficiently advance clinical development for our lead product candidate, INZ-701, with an initial focus on ENPP1 and ABCC6 deficiencies.
- Expand our research and development efforts for INZ-701 in additional diseases of abnormal mineralization and for other therapies beyond INZ-701.
- Establish commercialization infrastructure for the marketing and sale of INZ-701 for rare indications.
- Build a patient-focused company to treat diseases of abnormal mineralization.
- Continue to expand our scientific understanding of abnormal mineralization, our related intellectual property portfolio and our rights to complementary technologies.

Our Team

We have assembled a leadership team with a strong track record and experience in building and managing biopharmaceutical companies and in rare disease research, development and commercialization. Our executives have experience, in particular, in developing new markets, obtaining marketing approval for and commercializing therapies for rare diseases that had not previously been the focus for drug development. Axel Bolte, our President and Chief Executive Officer and a co-founder of our company, had a successful career in healthcare venture capital, investing in and serving on the boards of directors of multiple private and public biopharmaceutical companies. Members of our science and medical leadership team previously led various discovery, development and manufacturing programs at Genzyme Corp., Shire Human Genetic Therapies, BioMarin Pharmaceutical, Inc., Alexion Pharmaceuticals, Inc., Pfizer Inc. and Ultragenyx Pharmaceutical Inc., among other companies. Our operations have been funded to date by leading investors, including Longitude Venture Partners, New Enterprise Associates, Novo Holdings A/S, Pivotal bioVenture Partners, RA Capital Healthcare Fund and Sofinnova Venture Partners.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the “Risk Factors” section of this prospectus. These risks include the following:

- We have incurred significant losses since our inception. To date, we have not generated any revenue from product sales. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future and may never achieve or maintain profitability. Our net losses were $19.7 million for the year ended December 31, 2019 and $7.0 million for the year ended December 31, 2018.
- We will need substantial additional funding. If we are unable to raise capital when needed or on attractive terms, we may be required to delay, limit, reduce or terminate our research and 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.

- We have a limited operating history and are very early in our development efforts. All of our product candidates are still in preclinical development. We are heavily dependent on the success of our lead product candidate, INZ-701.

- The COVID-19 pandemic, which has spread worldwide, may affect our ability to initiate and complete preclinical studies, delay the initiation of our planned clinical trials or future clinical trials, disrupt regulatory activities, disrupt our manufacturing and supply chain or have other adverse effects on our business and operations. We cannot be certain what the overall impact of the COVID-19 pandemic will be on our business, and it has the potential to materially and adversely affect our business, financial condition, results of operations and prospects.

- We cannot be certain of the timely completion or outcome of our preclinical testing and clinical trials. The results of preclinical studies may not be predictive of the results of clinical trials, the results of any early-stage clinical trials we conduct may not be predictive of the results of later-stage clinical trials and our product candidates could be associated with serious adverse events or undesirable side effects.

- If we are unable to obtain required marketing approvals for, commercialize, manufacture, obtain, maintain and enforce patent protection for, gain market acceptance of or obtain and maintain coverage, adequate pricing and adequate reimbursement from third-party payors for our product candidates, or experience significant delays in doing so, our business will be materially harmed and our ability to generate revenue from product sales will be materially impaired.

- The design and conduct of our clinical trials for the treatment of ENPP1 or ABCC6 deficiencies may take longer, be more costly or be less effective as a result of the novelty of development in these diseases. We may use new or novel endpoints or methodologies and regulatory authorities may not consider the endpoints of our clinical trials to provide clinically meaningful results.

- We focus our research and product development on treatments for rare diseases. Given the small number of patients who have the diseases that we are targeting, it is critical to our ability to grow and become profitable that we continue to successfully identify patients with these rare diseases and capture a significant market share.

- We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates receive marketing approval. This reliance on third parties may increase 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.

- If we are unable to obtain, maintain, enforce and protect patent protection for our technology and products or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be adversely affected.

- We are highly dependent on the research and development, clinical, financial, operational and other business expertise of our executive officers, as well as the other principal members of our management, scientific and clinical teams. Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

Our Corporate Information

We were formed under the laws of the State of Delaware in September 2015 as a limited liability company under the name Inozyme Pharma, LLC. On January 12, 2017, Inozyme Pharma, LLC converted into a Delaware corporation and changed its name to Inozyme Pharma, Inc. Our principal executive offices are located at 321 Summer Street, Suite 400, Boston, Massachusetts 02210, and our telephone number is (857) 330-4340. Our website address is http://www.inozyme.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

In this prospectus, unless otherwise indicated or the context otherwise requires, references to “Inozyme,” “we,” “us,” “our” and similar references refer to Inozyme Pharma, Inc. and its consolidated subsidiaries.

Implications of Being an Emerging Growth Company

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an “emerging growth company,” or EGC, as defined in the Jumpstart Our Business Startups Act of 2012. We may remain an EGC until the last day of the fiscal year in which the fifth anniversary of the closing of this offering occurs, although if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if we have annual gross revenues of $1.07 billion or more in any fiscal year, we would cease to be an EGC as of December 31 of the applicable year. We also would cease to be an EGC if we issue more than $1 billion of non-convertible debt over a three-year period. For so long as we remain an EGC, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not EGCs. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an EGC. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock. We have elected to use the extended transition period for complying with new or revised accounting standards and will do so until such time that we either (1) irrevocably elect to “opt out” of such extended transition period or (2) no longer qualify as an EGC. As a result of this election, our consolidated financial statements may not be comparable to companies that comply with public company Financial Accounting Standards Board standards’ effective dates.

THE OFFERING

Common stock offered	shares
Common stock to be outstanding immediately following this offering	shares
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days to purchase up to additional shares of our common stock.
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares in full), based on 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. We intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, for the completion of our IND submission and conduct of our Phase 1/2 clinical trial of INZ-701 for ENPP1 deficiency, for the completion of our CTA submission and conduct of our Phase 1/2 clinical trial of INZ-701 for ABCC6 deficiency, for preclinical studies for research stage programs and for working capital and other general corporate purposes. See the "Use of Proceeds" section of this prospectus for a more complete description of the intended use of proceeds from this offering.
Risk Factors	You should read the "Risk Factors" section of this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed Nasdaq Global Market symbol	"INZY"

The number of shares of our common stock to be outstanding after this offering is based on 9,022,258 shares of our common stock outstanding as of March 31, 2020 and 72,416,431 additional shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock upon the closing of this offering.

The number of shares of our common stock to be outstanding after this offering does not include:

- 12,135,693 shares of our common stock issuable upon exercise of stock options outstanding as of March 31, 2020, at a weighted average exercise price of $0.22 per share;
- 7,729,049 additional shares of our common stock reserved for future issuance under our existing Amended and Restated 2017 Equity Incentive Plan, as amended, as of March 31, 2020;

- additional shares of our common stock that will be available for future issuance as of the closing of this offering under our new 2020 Stock Incentive Plan; and

- additional shares of our common stock that will be available for future issuance as of the closing of this offering under our new 2020 Employee Stock Purchase Plan.

Unless otherwise indicated or the context otherwise requires, all information in this prospectus:

- assumes no exercise by the underwriters of their option to purchase additional shares of our common stock from us;

- gives effect to the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing of this offering;

- assumes no exercise of the outstanding options described above; and

- gives effect to the restatement of our certificate of incorporation and the amendment and restatement of our bylaws upon the closing of this offering.

SUMMARY CONSOLIDATED FINANCIAL DATA

You should read the following summary consolidated 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 consolidated statements of operations data for the years ended December 31, 2019 and 2018 and the balance sheet data as of December 31, 2019 from our audited consolidated financial statements appearing at the end of this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future.

	Years Ended December 31,	
	2019	2018
	(in thousands, except share and per share data)	
Consolidated Statements of Operations Data:		
Operating expenses:		
Research and development	$ 16,220	$ 8,099
General and administrative	4,586	3,494
Total operating expenses	20,806	11,593
Loss from operations	(20,806)	(11,593)
Other income (expense):		
Interest income	1,106	284
Other expense, net	(24)	(29)
Change in fair value of preferred stock tranche liability	—	4,374
Other income (expense), net	1,082	4,629
Net loss	$ (19,724)	$ (6,964)
Net loss per share attributable to common stockholders—basic and diluted(1)	$ (2.23)	$ (0.89)
Weighted-average common shares outstanding—basic and diluted(1)	8,841,657	7,851,950
Pro forma net loss per share attributable to common stockholders—basic and diluted (unaudited)(1)	$ (0.25)	
Pro forma weighted-average common shares outstanding—basic and diluted (unaudited)(1)	77,732,846	

(1) See Note 10 to our consolidated financial statements appearing at the end of this prospectus for a description of the method used to calculate basic and diluted net loss per share and unaudited pro forma basic and diluted net loss per share as well as the weighted-average number of common shares used in the calculation of the per share amounts.

	December 31, 2019		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash, cash equivalents and short-term investments	$ 47,132	$ 47,132	
Working capital(3)	44,224	44,224	
Total assets	47,944	47,944	
Convertible preferred stock	77,927	—	
Accumulated deficit	(34,652)	(34,652)	
Total stockholders' deficit	(33,219)	44,708	

(1) The pro forma balance sheet data give effect to the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing of this offering.

(2) The pro forma as adjusted balance sheet data give 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, 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.

(3) We define working capital as current assets less current liabilities. See our consolidated financial statements for further details regarding our current assets and current liabilities.

The pro forma as adjusted information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. A $1.00 increase (decrease) in the 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, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, working capital, total assets 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. An increase (decrease) of 1,000,000 shares 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, cash equivalents and short-term investments, working capital, total assets 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.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below together with all of the other information contained in this prospectus, including our consolidated financial statements and the related notes appearing at the end of this prospectus, before deciding to invest in our common stock. If any of the following risks actually occur, our business, prospects, operating results and financial condition could suffer materially. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to our Financial Position and Need for Additional Capital

We have incurred significant losses since our inception. We expect to continue to incur significant expenses and operating losses for the foreseeable future and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses. Our net losses were $19.7 million for the year ended December 31, 2019 and $7.0 million for the year ended December 31, 2018. As of December 31, 2019, we had an accumulated deficit of $34.7 million. To date, we have not yet commercialized any products or generated any revenue from product sales and have financed our operations primarily with proceeds from sales of convertible preferred stock. We have devoted substantially all of our financial resources and efforts to pursuing research and development of our product candidates. We are still in the early stages of development of our lead product candidate, INZ-701, and plan to file applications with regulatory authorities in the United States and Europe in to allow us to initiate clinical development.

We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- prepare for, initiate and conduct a planned Phase 1/2 clinical trial of INZ-701 for ENPP1 deficiency;
- prepare for, initiate and conduct a planned Phase 1/2 clinical trial of INZ-701 for ABCC6 deficiency;
- prepare for, initiate and conduct later stage clinical trials of INZ-701 for patients with ENPP1 and ABCC6 deficiencies;
- conduct research and preclinical testing of INZ-701 for additional indications;
- conduct research and preclinical testing of other product candidates;
- advance INZ-701 for additional indications or any other product candidate into clinical development;
- seek marketing approval for INZ-701 or any other product candidate if it successfully completes clinical trials;
- scale up our manufacturing processes and capabilities to support clinical trials of INZ-701 or any other product candidates we develop and for commercialization of any product candidate for which we may obtain marketing approval;
- establish a sales, marketing and distribution infrastructure to commercialize any product candidate for which we may obtain marketing approval;
- in-license or acquire additional technologies or product candidates;

- make any payments to Yale University, or Yale, under our license agreement or sponsored research agreement with Yale;
- maintain, expand, enforce and protect our intellectual property portfolio;
- hire additional clinical, regulatory, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our research, product development and planned future commercialization efforts and our operations as a public company.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Our expenses could increase beyond our expectations if, among other things:

- we are required by regulatory authorities in the United States, Europe or other jurisdictions to perform trials or studies in addition to, or different than, those that we currently expect;
- there are any delays in establishing appropriate manufacturing arrangements for or completing the development of any of our product candidates; or
- there are any third-party challenges to our intellectual property or we need to defend against any intellectual property-related claim.

Even if we obtain marketing approval for and are successful in commercializing one or more of our product candidates, we expect to incur substantial additional research and development and other expenditures to develop and market additional product candidates or to expand the approved indications of any marketed product. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue.

We have never generated revenue from product sales and may never achieve or maintain profitability.

We have not initiated clinical development of any product candidate and expect that it will be a number of years, if ever, before we have a product candidate ready for commercialization. To become and remain profitable, we must succeed in completing development of, obtaining marketing approval for and eventually commercializing, one or more products that generates significant revenue. The ability to achieve this success will require us to be effective in a range of challenging activities, including completing preclinical testing and clinical development of INZ-701 for ENPP1 and ABCC6 deficiencies, completing research, preclinical testing and clinical development of INZ-701 for additional indications or of other product candidates, scaling up our manufacturing processes and capabilities to support clinical trials of INZ-701 or of other product candidates we develop, obtaining marketing approval for INZ-701 or any other product candidates and manufacturing, marketing and selling any products for which we may obtain marketing approval. We are currently only in the preclinical testing stage for INZ-701. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our pipeline of product candidates or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

We are heavily dependent on the success of our lead product candidate, INZ-701, which will require significant clinical testing before we can seek marketing approval and potentially launch commercial sales. If INZ-701 does not receive marketing approval or is not successfully commercialized, or if there is significant delay in doing so, our business will be harmed.

We currently have not yet advanced any product candidates into clinical development, have no products that are approved for commercial sale and may never be able to develop marketable products. We expect that a substantial portion of our efforts and expenditures for the foreseeable future will be devoted to INZ-701. Our business currently depends heavily on the successful development, marketing approval and commercialization of INZ-701. We cannot be certain that INZ-701 will achieve success in future clinical trials, receive marketing approval or be successfully commercialized.

If we were required to discontinue development of INZ-701, or if INZ-701 does not receive marketing approval for one or more of the indications we pursue, fails to achieve significant market acceptance, or fails to receive adequate reimbursement, we would be delayed by many years in our ability to achieve profitability, if ever, and may not be able to generate sufficient revenue to continue our business.

We will need substantial additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect to devote substantial financial resources to our ongoing and planned activities, particularly as we prepare for, initiate and conduct our planned Phase 1/2 clinical trials of INZ-701 for ENPP1 and ABCC6 deficiencies, and continue research and development and initiate additional clinical trials of, and seek marketing approval for, INZ-701 and any other product candidates we develop. We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we advance our preclinical activities and clinical trials. In addition, if we obtain marketing approval for INZ-701 or any other product candidate we develop, we expect to incur significant commercialization expenses related to product manufacturing, sales, marketing 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 or obtain adequate funds when needed or on acceptable terms, we may be required to delay, limit, reduce or terminate our research and 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. In addition, attempting to secure additional financing may divert the time and attention of our management from day-to-day activities and distract from our research and development efforts.

Our future capital requirements will depend on many factors, including:

- the progress, costs and results of our planned Phase 1/2 clinical trials of INZ-701 for ENPP1 and ABCC6 deficiencies and any future clinical development of INZ-701 for these indications;
- the scope, progress, costs and results of research, preclinical testing and clinical trials of INZ-701 for additional indications;
- the number of and development requirements for additional indications for INZ-701 or for any other product candidates we develop;
- our ability to scale up our manufacturing processes and capabilities to support clinical trials of INZ-701 and any other product candidates we develop;
- the costs, timing and outcome of regulatory review of INZ-701 and any other product candidates we develop;

- potential changes in the regulatory environment and enforcement rules;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the payment of license fees and other costs of our technology license arrangements;
- the costs and timing of future commercialization activities, including product manufacturing, sales, marketing and distribution, for INZ-701 and any other product candidates we develop for which we may receive marketing approval;
- the amount and timing of revenue, if any, received from commercial sales of INZ-701 and any other product candidates we develop for which we receive marketing approval;
- potential changes in pharmaceutical pricing and reimbursement infrastructure;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property and proprietary rights and defending any intellectual property-related claims; and
- the extent to which we in-license or acquire additional technologies or product candidates.

As of December 31, 2019, we had cash, cash equivalents and short-term investments of approximately $47.1 million. We believe that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements through . However, we have based this estimate on assumptions that may prove to be wrong, and our operating plan may change as a result of many factors currently unknown to us. In addition, changing circumstances could cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more than currently expected because of circumstances beyond our control. As a result, we could deplete our capital resources sooner than we currently expect. In addition, because the successful development of INZ-701 and any other product candidates that we pursue is highly uncertain, at this time we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of any product candidate.

Identifying potential product candidates and conducting preclinical 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 marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. We will not generate commercial revenues unless and until we can achieve sales of products, which we do not anticipate for a number of years, if at all. Accordingly, we will need to obtain substantial additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all, and may be impacted by the economic climate and market conditions. For example, market volatility resulting from the COVID-19 pandemic or any other future infectious diseases, epidemics or pandemics could also adversely impact our ability to access capital as and when needed. Alternatively, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

Raising additional capital may cause dilution to our stockholders, including purchasers of our 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 revenues from product sales, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic

alliances and marketing, distribution or 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 interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our operations and ability to take specific actions, such as incurring additional debt, making acquisitions, engaging in acquisition, merger or collaboration transactions, selling or licensing our assets, making capital expenditures, redeeming our stock, making certain investments or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution 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.

Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We commenced activities in 2017 and are an early-stage company. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, securing intellectual property rights, conducting research and development activities, establishing arrangements for the manufacture of INZ-701 and longer term planning for potential commercialization. All of our product candidates are still in preclinical development. Our prospects must be considered in light of the uncertainties, risks, expenses and difficulties frequently encountered by companies in their early stages of operations. We have not yet demonstrated our ability to successfully initiate or complete any clinical trials, obtain marketing approvals, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales, marketing and distribution activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing, obtaining marketing approval for and commercializing products.

In addition, as our business grows, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown obstacles. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

As we continue to build our business, we expect our financial condition and operating results to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

The COVID-19 pandemic, which began in late 2019 and has spread worldwide, may affect our ability to initiate and complete preclinical studies, delay the initiation of our planned clinical trials or future clinical trials, disrupt regulatory activities, disrupt our manufacturing and supply chain or have other adverse effects on our business and operations. In addition, this pandemic has caused substantial disruption in the financial markets and may adversely impact economies worldwide, both of which could result in adverse effects on our business and operations.

The COVID-19 pandemic, which began in December 2019 and has spread worldwide, has caused many governments to implement measures to slow the spread of the outbreak through quarantines, travel restrictions, heightened border scrutiny and other measures. The outbreak and government measures taken in response have also had a significant impact, both directly and indirectly, on businesses and commerce, as worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended; and demand for certain goods and services, such as medical services and supplies, has spiked, while demand for other goods and services, such as travel, has fallen. The future progression of the outbreak and its effects on our business and operations are uncertain.

We and the third-party manufacturers and clinical research organizations that we engage may face disruptions that could affect our ability to initiate and complete preclinical studies or clinical trials, including disruptions in procuring items that are essential for our research and development activities, such as, for example, raw materials used in the manufacturing of our product candidates, laboratory supplies for our preclinical studies and planned clinical trials, or animals that are used for preclinical testing, in each case, for which there may be shortages because of ongoing efforts to address the outbreak.

As a result of the COVID-19 pandemic, we may experience further disruptions that could severely impact our business, including:

- disruptions related to our planned clinical trials or future clinical trials arising from delays in completing preclinical studies required to begin clinical development;
- manufacturing disruptions;
- the inability to obtain necessary site approvals or other delays at clinical trial sites;
- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- interruption of key clinical trial activities, such as clinical trial site data monitoring, due to limitations on travel imposed or recommended by foreign, federal or state governments, employers and others;
- interruption of clinical trial subject visits and study procedures, which may impact the integrity of subject data and clinical study endpoints;
- interruption or delays in the operations of the U.S. Food and Drug Administration, or FDA, or other regulatory authorities, which may impact review and approval timelines;
- limitations on employee resources that would otherwise be focused on the conduct of our preclinical studies and clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people;
- difficulties recruiting or retaining patients for our planned clinical trials if patients are affected by the virus or are fearful of visiting or traveling to clinical trial sites because of the outbreak; and
- risk that participants enrolled in our clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events and refusal of the FDA to accept data from clinical trials in these affected geographies.

The response to the COVID-19 pandemic may redirect resources with respect to regulatory and intellectual property matters in a way that would adversely impact our ability to pursue marketing approvals and protect our intellectual property. In addition, we may face impediments to regulatory meetings and potential approvals due to measures intended to limit in-person interactions.

Furthermore, third parties, including manufacturers, medical institutions, clinical investigators, contract research organizations and consultants with whom we conduct business, are similarly adjusting their operations and assessing their capacity in light of the COVID-19 pandemic. If these third parties continue to experience shutdowns or business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted.

The COVID-19 pandemic continues to evolve and has already caused significant disruptions in the financial markets, and may continue to cause such disruptions, which could impact our ability to raise additional funds through public offerings and may also impact the volatility of our stock price and trading in our stock. Moreover, it is possible the pandemic will further significantly impact economies worldwide, which could result in adverse effects on our business and operations. We cannot be certain what the overall impact of the COVID-19 pandemic will be on our business, and it has the potential to materially and adversely affect our business, financial condition, results of operations and prospects. To the extent the COVID-19 pandemic adversely affects our business, financial condition and results of operations, it may also have the effect of heightening many of the other risks described in this "Risk Factors" section.

We have identified conditions and events that raise substantial doubt about our ability to continue as a going concern.

We may be forced to delay or reduce the scope of our development programs and/or limit or cease our operations if we are unable to obtain additional funding to support our current operating plan. We have identified conditions and events that raise substantial doubt about our ability to continue as a going concern. As of December 31, 2019, we had cash, cash equivalents and short-term investments of approximately $47.1 million. Based on our available cash resources, we believe we do not have sufficient cash on hand to support current operations for at least one year from the date of issuance of the financial statements appearing at the end of this prospectus. This condition raises substantial doubt about our ability to continue as a going concern for at least one year from the date of issuance of the financial statements appearing at the end of this prospectus. We will need to raise additional capital in this offering and/or otherwise to fund our future operations and remain as a going concern. However, we cannot guarantee that we will be able to obtain sufficient additional funding in this offering or otherwise or that such funding, if available, will be obtainable on terms acceptable to us. In the event that we are unable to obtain sufficient additional funding, there can be no assurance that we will be able to continue as a going concern.

Changes in tax laws or in their implementation may adversely affect our business and financial condition.

Changes in tax law may adversely affect our business or financial condition. On December 22, 2017, the U.S. government enacted legislation commonly referred to as the Tax Cuts and Jobs Act, or the TCJA, which significantly reformed the Internal Revenue Code of 1986, as amended, or the Code. The TCJA, among other things, contained significant changes to corporate taxation, including a 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 earnings (except for certain small businesses), the limitation of the deduction for net operating losses, or NOLs, arising in taxable years beginning after December 31, 2017 to 80% of current year taxable income and elimination of NOL carrybacks for losses arising in taxable years ending after December 31, 2017 (though any such NOLs may be carried forward indefinitely), the imposition of a one-time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, the elimination of U.S. tax on foreign earnings (subject to certain important exceptions), the allowance of immediate deductions for certain new investments instead of deductions for depreciation expense over time, and the modification or repeal of many business deductions and credits.

As part of Congress's response to the COVID-19 pandemic, the Families First Coronavirus Response Act, or FFCR Act, was enacted on March 18, 2020, and the Coronavirus Aid, Relief, and Economic Security Act, or CARES Act, was enacted on March 27, 2020. Both contain numerous tax provisions. In particular, 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, which was enacted as part of the TCJA. It also provides that NOLs arising in any taxable year beginning after December 31, 2017 and before January 1, 2021 are generally eligible to be carried back up to five years. The CARES Act also temporarily (for taxable years beginning in 2019 or 2020) relaxes the limitation of the tax deductibility for net interest expense by increasing the limitation from 30% to 50% of adjusted taxable income.

Regulatory guidance under the TCJA, the FFCR Act and the CARES Act is and continues to be forthcoming, and such guidance could ultimately increase or lessen impact of these laws on our business and financial condition. It is also likely that Congress will enact additional legislation in connection with the COVID-19 pandemic, some of which could have an impact on our company. In addition, it is uncertain if and to what extent various states will conform to the TCJA, the FFCR Act or the CARES Act.

Our ability to use our NOLs and research and development tax credit carryforwards to offset future taxable income may be subject to certain limitations.

We have a history of cumulative losses and anticipate that we will continue to incur significant losses in the foreseeable future. As a result, we do not know whether or when we will generate taxable income necessary to utilize our NOLs or research and development tax credit carryforwards. As of December 31, 2019, we had federal and state NOL carryforwards of $34.6 million and $21.6 million, respectively, and federal and state research and development tax credit carryforwards totaling $0.4 million.

In general, under Section 382 of the Code and corresponding provisions of state law, a corporation that undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three year period, is subject to limitations on its ability to utilize its pre-change NOLs and research and development tax credit carryforwards to offset future taxable income. We have not conducted a study to assess whether any such ownership changes have occurred. We may have experienced such ownership changes in the past and may experience such ownership changes in the future as a result of this offering or subsequent changes in our stock ownership (which may be outside our control). As a result, if and to the extent we earn net taxable income, our ability to use our pre-change NOLs and research and development tax credit carryforwards to offset such taxable income may be subject to limitations.

Risks Related to Research and Development of our Product Candidates

We are very early in our development efforts. Our lead product candidate, INZ-701, is in preclinical development. If we are unable to commercialize INZ-701 or experience significant delays in doing so, our business will be materially harmed.

We are very early in our development efforts, and all of our product candidates are still in preclinical development. We plan to file applications with regulatory authorities in the United States and Europe in to allow us to initiate clinical development of INZ-701. Our ability to generate revenues from product sales, which we do not expect will occur for a number of years, if ever, will depend heavily on the successful development, marketing approval and eventual commercialization of INZ-701 or other product candidates we develop, which may never occur. The success of INZ-701 and any other product candidate we develop will depend on several factors, including the following:

- successfully completing preclinical studies and initiating clinical trials, including acceptance of our Investigational New Drug Application, or IND, for INZ-701 by the FDA and similar applications by regulatory authorities in Europe to allow us to initiate clinical development of INZ-701;
- successfully enrolling patients in and completing clinical trials;
- scaling up manufacturing processes and capabilities to support clinical trials of INZ-701 and any other product candidates we develop;
- applying for and receiving marketing approvals from applicable regulatory authorities;
- obtaining and maintaining intellectual property protection and regulatory exclusivity for INZ-701 and any other product candidates we develop;

- making arrangements for commercial manufacturing capabilities;
- establishing sales, marketing and distribution capabilities and launching commercial sales of INZ-701 and any other product candidates we develop, if and when approved, whether alone or in collaboration with others;
- acceptance of INZ-701 and any other product candidates we develop, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining coverage, adequate pricing and adequate reimbursement from third-party payors, including government payors;
- maintaining, enforcing, defending and protecting our rights in our intellectual property portfolio;
- not infringing, misappropriating or otherwise violating others' intellectual property or proprietary rights; and
- maintaining a continued acceptable safety profile of our products following receipt of any marketing approvals.

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 develop and commercialize INZ-701 or any other product candidate we develop, which would materially harm our business. As a company, we do not have any experience in clinical development and have not advanced INZ-701 or any other product candidates into clinical development. Any predictions about the future success or viability of INZ-701 or any product candidates we develop may not be as accurate as they could be if we had a history of conducting clinical trials.

Drug development involves a lengthy and expensive process, with an uncertain outcome. The results of preclinical studies and early clinical trials may not be predictive of future results. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of INZ-701 or any other product candidate. If our clinical trials do not meet safety or efficacy endpoints, or if we experience significant delays in trials, our ability to commercialize INZ-701 or any other product candidates we develop and our financial position will be impaired.

Our lead product candidate, INZ-701, is in preclinical development and its risk of failure is high. It is impossible to predict when or if INZ-701 or any other product candidate that we develop will prove effective or safe in humans or will receive marketing approval. Before obtaining marketing approval from regulatory authorities for the sale of INZ-701 or any other product candidate we develop, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. We have not yet begun a clinical trial of INZ-701 or any other product candidate. Clinical trials may fail to demonstrate that INZ-701 or any other product candidates we develop is safe for humans and effective for indicated uses. Even if the clinical trials are successful, changes in marketing approval policies during the development period, changes in or the enactment or promulgation of additional statutes, regulations or guidance or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application.

In order to obtain regulatory approval to market a new biological product, we must demonstrate proof of safety, purity and potency or efficacy in humans. To satisfy these requirements, we will have to conduct adequate and well-controlled clinical trials. Before we can commence clinical trials for a product candidate, we must complete extensive preclinical testing and studies that support our applications to regulatory authorities in the

United States and Europe to allow us to initiate clinical development. We cannot be certain of the timely completion or outcome of our preclinical testing and studies and cannot predict if the outcome of our preclinical testing and studies will ultimately support the further development of our current or future product candidates or whether regulatory authorities will accept our proposed clinical programs. As a result, we may not be able to submit applications to initiate clinical development of INZ-701 or any other product candidate we develop on the timelines we expect, if at all, and the submission of these applications may not result in regulatory authorities allowing clinical trials to begin. Furthermore, product candidates are subject to continued preclinical safety studies, which may be conducted concurrently with our clinical testing. The outcomes of these safety studies may delay the launch of or enrollment in future clinical trials and could impact our ability to continue to conduct our clinical trials.

Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to the outcome. We cannot guarantee that any of our clinical trials will be conducted as planned or completed on schedule, or at all. A failure of one or more clinical trials can occur at any stage of testing, which may result from a multitude of factors, including, among other things, flaws in study design, dose selection issues, placebo effects, patient enrollment criteria and failure to demonstrate favorable safety or efficacy traits. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and preliminary or interim results of a clinical trial do not necessarily predict final results. For example, our product candidates may fail to show the desired safety and efficacy in clinical development despite positive results in preclinical studies or having successfully advanced through initial clinical trials. As a result, we cannot assure you that any clinical trials that we may conduct will demonstrate consistent or adequate efficacy and safety to support marketing approval.

Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials even after achieving promising results in preclinical testing and earlier-stage clinical trials, and we cannot be certain that we will not face similar setbacks. 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 marketing approval of their products. Furthermore, the failure of any of our product candidates to demonstrate safety and efficacy in any clinical trial could negatively impact the perception of our other product candidates or cause regulatory authorities to require additional testing before approving any of our product candidates.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize any product candidates that we develop, including:

- regulators or institutional review boards, or IRBs, may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site or at all;
- we may experience delays in reaching, or fail to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- regulators may determine that the planned design of our clinical trials is flawed or inadequate;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- we may be unable to establish clinical endpoints that applicable regulatory authorities consider clinically meaningful, or, if we seek accelerated approval, biomarker efficacy endpoints that applicable regulatory authorities consider likely to predict clinical benefit;

- preclinical testing may produce results based on which we may decide, or regulators may require us, to conduct additional preclinical studies before we proceed with certain clinical trials, limit the scope of our clinical trials, halt ongoing clinical trials or abandon product development programs;
- 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 at a higher rate than we anticipate;
- third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we may decide, or regulators or IRBs may require us, to suspend or terminate clinical trials of our product candidates for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- regulators or IRBs may require us to perform additional or unanticipated clinical trials to obtain approval or we may be subject to additional post-marketing testing requirements to maintain marketing approval;
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- 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 clinical investigators, regulators or IRBs to suspend or terminate the trials;
- regulators may withdraw their approval of a product or impose restrictions on its distribution; and
- business interruptions resulting from the COVID-19 pandemic.

If we are required to conduct additional 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, if there are safety concerns or if we determine that the observed safety or efficacy profile would not be competitive in the marketplace, we may:

- incur unplanned costs;
- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;

- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in preclinical studies or clinical trials or in obtaining marketing approvals. We do not know whether any of our preclinical studies or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. We may also determine to change the design or protocol of one or more of our clinical trials, including to add additional patients or arms, which could result in increased costs and expenses or delays. Significant preclinical study or clinical trial delays 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 and impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

Because we are developing INZ-701 for the treatment of diseases in which there is little clinical experience and, in some cases, using new endpoints or methodologies, the FDA or other regulatory authorities may not consider the endpoints of our clinical trials to predict or provide clinically meaningful results.

There are currently no therapies approved to treat ENPP1 or ABCC6 deficiencies, and there may be no therapies approved to treat the underlying causes of diseases that we attempt to address or may address in the future. As a result, the design and conduct of clinical trials of product candidates for the treatment of these diseases may take longer, be more costly or be less effective as a result of the novelty of development in these diseases. In some cases, we may use new or novel endpoints or methodologies, such as change in plasma PPi, which we plan to evaluate in our Phase 1/2 clinical trials of INZ-701, and regulatory authorities may not consider the endpoints of our clinical trials to provide clinically meaningful results. Any such regulatory authority may require evaluation of additional or different clinical endpoints in our clinical trials or ultimately determine that these clinical endpoints do not support marketing approval. In addition, if we are required to use additional or different clinical endpoints by regulatory authorities, INZ-701 may not achieve or meet such clinical endpoints in our clinical trials.

Even if a regulatory authority finds our clinical trial success criteria to be sufficiently validated and clinically meaningful, we may not achieve the pre-specified endpoint to a degree of statistical significance in any pivotal or other clinical trials we may conduct for our product candidates. Further, even if we do achieve the pre-specified criteria, our trials may produce results that are unpredictable or inconsistent with the results of other efficacy endpoints in the trial. Regulatory authorities also could give overriding weight to other efficacy endpoints over a primary endpoint even if we achieve statistically significant results on that primary endpoint, if we do not do so on our secondary efficacy endpoints. Regulatory authorities also weigh the benefits of a product against its risks and may view the efficacy results in the context of safety as not being supportive of approval.

If we experience delays or difficulties in the enrollment of patients in our clinical trials for INZ-701 or any other product candidate we develop, our receipt of necessary marketing approvals could be delayed or prevented.

Identifying and qualifying patients to participate in clinical trials for INZ-701 and any other product candidate we develop is critical to our success. Successful and timely completion of clinical trials will require that we enroll a sufficient number of patients who remain in the trial until its conclusion. Because of our primary focus on rare diseases, we may have difficulty enrolling a sufficient number of eligible patients. ENPP1 deficiency is estimated to occur in approximately one in 200,000 births, and we believe there are between 11,000 and 12,000 patients worldwide with ENPP1 deficiency. ABCC6 deficiency is estimated to afflict approximately one per 50,000 individuals, and we believe there are more than 67,000 patients worldwide with ABCC6 deficiency. 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

similar regulatory authorities outside of the United States. We cannot predict how successful we will be at enrolling subjects in future clinical trials. Patient enrollment is affected by a variety of other factors, including:

- the prevalence and severity of the disease under investigation;
- the eligibility criteria for the trial in question;
- the perceived risks and benefits of the product candidate under trial;
- the requirements of the trial protocols;
- the availability of existing treatments for the indications for which we are conducting clinical trials;
- the ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the efforts to facilitate timely enrollment in clinical trials;
- the ability to identify specific patient populations based on specific genetic mutations or other factors;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment;
- our ability to obtain and maintain patient consents;
- the proximity and availability of clinical trial sites for prospective patients;
- the conduct of clinical trials by competitors for product candidates that treat the same indications or address the same patient populations as our product candidates;
- the cost to, or lack of adequate compensation for, prospective patients; and
- the impact of the ongoing COVID-19 pandemic.

Our inability to locate and enroll a sufficient number of patients for our clinical trials would result in significant delays, could require us to abandon one or more clinical trials altogether and could delay or prevent our receipt of necessary regulatory approvals. Enrollment delays in our clinical trials may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing.

If serious adverse events, undesirable side effects or unexpected characteristics are identified during the development of INZ-701 or any other product candidate we may develop, we may need to abandon or limit our further clinical development of those product candidates.

We have not yet evaluated INZ-701 or any other product candidate in clinical trials. If INZ-701 or any other product candidate we develop is associated with serious adverse events or undesirable side effects in clinical trials or have characteristics that are unexpected in clinical trials or preclinical testing, we may need to abandon development of such product candidate or limit development to more narrow uses or subpopulations in which the serious adverse events, undesirable side effects or unexpected characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. In pharmaceutical development, many compounds that initially show promise in early-stage or clinical testing are later found to cause side effects that delay or prevent further development of the compound.

Additionally, if results of our clinical trials reveal undesirable side effects, we, regulatory authorities or the IRBs at the institutions in which our studies are conducted could suspend or terminate our clinical trials, regulatory authorities could order us to cease clinical trials or deny approval of our product candidates for any or all targeted indications or we could be forced to materially modify the design of our clinical trials. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete any of our clinical trials or result in potential liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff.

If we elect or are forced to suspend or terminate any clinical trial of our product candidates, the commercial prospects of such product candidate will be harmed, and our ability to generate revenues from sales of such product candidate will be delayed or eliminated. Any of these occurrences could materially harm our business.

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

From time to time, we may publish interim top-line or preliminary results from our clinical trials. Interim results from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as participant enrollment continues and more participant data become available. 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 evaluate all data. Preliminary or top-line results also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could be material and could significantly harm our reputation and business prospects and may cause the trading price of our common stock to fluctuate significantly.

If any of our product candidates receives marketing approval and we, or others, later discover that the drug is less effective than previously believed or causes undesirable side effects that were not previously identified, our ability to market the drug could be compromised.

We have not yet evaluated any product candidates in clinical trials. Clinical trials will be conducted in carefully defined subsets of patients who have agreed to enter into clinical trials. Consequently, it is possible that our clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any, or alternatively fail to identify undesirable side effects. If one or more of our product candidates receives marketing approval, and we, or others, later discover that they are less effective than previously believed, or cause undesirable side effects, a number of potentially significant negative consequences could result, including:

- withdrawal or limitation by regulatory authorities of approvals of such product;
- seizure of the product by regulatory authorities;
- recall of the product;
- restrictions on the marketing of the product or the manufacturing process for any component thereof;
- requirement by regulatory authorities of additional warnings on the label;
- requirement that we implement a risk evaluation and mitigation strategy or create a medication guide outlining the risks of such side effects for distribution to patients;

- commitment to expensive post-marketing studies as a prerequisite of approval by regulatory authorities of such product;
- the product may become less competitive;
- initiation of regulatory investigations and government enforcement actions;
- initiation of legal action against us to hold us liable for harm caused to patients; and
- harm to our reputation and resulting harm to physician or patient acceptance of our products.

Any of these events could prevent us from achieving or maintaining market acceptance of a particular product candidate, if approved, and could significantly harm our business, financial condition, and results of operations.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific 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. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate. Failure to allocate resources or capitalize on strategies in a successful manner will have an adverse impact on our business.

We currently plan to conduct clinical trials for our product candidates at sites outside the United States, and the FDA may not accept data from trials conducted in such locations.

We plan to conduct clinical trials of INZ-701 outside the United States. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of these data is subject to conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted and be performed by qualified investigators in accordance with ethical principles. The trial population must also adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will depend on its determination that the trials also complied with all applicable U.S. laws and regulations. If the FDA does not accept the data from any trial that we conduct outside the United States, it would likely result in the need for additional trials, which would be costly and time-consuming and could delay or permanently halt our development of the applicable product candidates.

In addition, there are risks inherent in conducting clinical trials in multiple jurisdictions, inside and outside of the United States, such as:

- regulatory and administrative requirements of the jurisdiction where the trial is conducted that could burden or limit our ability to conduct our clinical trials;
- foreign exchange rate fluctuations;

- manufacturing, customs, shipment and storage requirements;
- cultural differences in medical practice and clinical research; and
- the risk that the patient populations in such trials are not considered representative as compared to the patient population in the target markets where approval is being sought.

Because gene therapy is novel and the regulatory landscape that governs any product candidates we may develop is uncertain and may change, we cannot predict the time and cost of obtaining regulatory approval, if we receive it at all, for any product candidates we may develop.

The regulatory requirements that will govern any novel gene therapy product candidates we develop are not entirely clear and may change. Within the broader genetic medicine field, we are aware of a limited number of gene therapy products that have received marketing authorization from the FDA and the European Medicines Authority, or EMA. Even with respect to more established products that fit into the categories of gene therapies or cell therapies, the regulatory landscape is still developing. Regulatory requirements governing gene therapy products and cell therapy products have changed frequently and will likely continue to change in the future. Moreover, there is substantial, and sometimes uncoordinated, overlap in those responsible for regulation of existing gene therapy products and cell therapy products. For example, in the United States, the FDA has established the Office of Tissues and Advanced Therapies within its Center for Biologics Evaluation and Research, or CBER, to consolidate the review of gene therapy and related products, and the Cellular, Tissue and Gene Therapies Advisory Committee to advise CBER on its review. Gene therapy clinical trials are also subject to review and oversight by an institutional biosafety committee, or IBC, a local institutional committee that reviews and oversees basic and clinical research conducted at the institution participating in the clinical trial. Gene therapy clinical trials conducted at institutions that receive funding for recombinant DNA research from the National Institutes of Health, or NIH, are also subject to review by the NIH Office of Biotechnology Activities' Recombinant DNA Advisory Committee. Although the FDA decides whether individual gene therapy protocols may proceed, the review process and determinations of other reviewing bodies can impede or delay the initiation of a clinical trial, even if the FDA has reviewed the trial and approved its initiation. The same applies in the European Union. The EMA's Committee for Advanced Therapies, or CAT, is responsible for assessing the quality, safety, and efficacy of advanced-therapy medicinal products. The role of the CAT is to prepare a draft opinion on an application for marketing authorization for a gene therapy medicinal candidate that is submitted to the EMA. In the European Union, the development and evaluation of a gene therapy medicinal product must be considered in the context of the relevant European Union guidelines. The EMA may issue new guidelines concerning the development and marketing authorization for gene therapy medicinal products and require that we comply with these new guidelines. As a result, the procedures and standards applied to gene therapy products and cell therapy products may be applied to any gene therapy product candidates we may develop, but that remains uncertain at this point.

Adverse public perception of genetic medicine, and gene therapy in particular, may negatively impact regulatory approval of, or demand for, our potential products.

The clinical and commercial success of our potential products will depend in part on public acceptance of the use of gene therapy for the prevention or treatment of human diseases. Public attitudes may be influenced by claims that gene therapy is unsafe, unethical, or immoral, and, consequently, our products may not gain the acceptance of the public or the medical community. Adverse public attitudes may adversely impact our ability to enroll clinical trials. Moreover, our success will depend upon physicians prescribing, and their patients being willing to receive, treatments that involve the use of product candidates we may develop in lieu of, or in addition to, existing treatments with which they are already familiar and for which greater clinical data may be available.

Risks Related to the Commercialization of our Product Candidates

Even if any of our product candidates receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, and the market opportunity for any of our product candidates, if approved, may be smaller than we estimate.

If any of our product candidates receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. Efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may not be successful. If our product candidates do not achieve an adequate level of acceptance, we may not generate significant revenues from product sales and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages of our product candidates compared to the advantages and relative risks of alternative treatments;
- the effectiveness of sales and marketing efforts;
- our ability to offer our products, if approved, for sale at competitive prices;
- the clinical indications for which the product is approved;
- the cost of treatment in relation to alternative treatments;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the timing of market introduction of competitive products;
- the availability of third-party coverage and adequate reimbursement, and patients' willingness to pay out of pocket for required co-payments or in the absence of third-party coverage or adequate reimbursement;
- product labeling or product insert requirements of the FDA, the EMA or other regulatory authorities, including any limitations or warnings contained in a product's approved labeling;
- the prevalence and severity of any side effects;
- support from patient advocacy groups; and
- any restrictions on the use of our products, if approved, together with other medications.

Our assessment of the potential market opportunity for our product candidates is based on industry and market data that we obtained from industry publications, research, surveys and studies conducted by third parties and our analysis of these data, research, surveys and studies. 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. While we believe these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data. Our estimates of the potential market opportunities for our product candidates include a number of key assumptions based on our industry knowledge, industry publications and third-party research, surveys and studies, which may be based on a small sample size and fail to accurately reflect market opportunities. While we believe that our internal assumptions are reasonable, no independent source has verified such assumptions. If any of our assumptions or estimates, or these publications, research, surveys or studies prove to be inaccurate, then the actual market for any of our product candidates may be smaller than we expect, and as a result our revenues from product sales may be limited and it may be more difficult for us to achieve or maintain profitability.

If we are unable to establish sales, marketing and distribution capabilities or enter into sales, marketing and distribution agreements with third parties, we may not be successful in commercializing our product candidates if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience as a company in the sale, marketing or distribution of pharmaceutical products. To achieve commercial success for any product for which we have obtained marketing approval, we will need to establish a sales, marketing and distribution organization, either ourselves or through collaborations or other arrangements with third parties.

We believe that we will be able to commercialize INZ-701, if approved, for ENPP1 or ABCC6 deficiency with a small, targeted, internal sales and commercial organization in the United States and other major markets. There are risks involved with establishing our own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. These efforts may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel. In general, the cost of establishing and maintaining a sales and marketing organization may exceed the cost-effectiveness of doing so.

Factors that may inhibit our efforts to commercialize our products on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales, marketing, coverage or reimbursement, customer service, medical affairs and other support personnel;
- our inability to equip sales personnel with effective materials, including medical and sales literature to help them educate physicians and other healthcare providers regarding rare diseases and our future products;
- our inability to effectively manage a geographically dispersed sales and marketing team;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future products;
- the inability of reimbursement professionals to negotiate arrangements for formulary access, reimbursement and other acceptance by payors;
- the inability to price our products at a sufficient price point to ensure an adequate and attractive level of profitability;
- restricted or closed distribution channels that make it difficult to distribute our products to segments of the patient population;

- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and

- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we are unable to establish our own sales, marketing and distribution capabilities and we enter into arrangements with third parties to perform these services, our revenues from product sales and our profitability, if any, are likely to be lower than if we were to market, sell and distribute any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute our product candidates or may be unable to do so on terms that are acceptable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do, thus rendering our products non-competitive, obsolete or reducing the size of our market.

The pharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. We face and will continue to face competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, government agencies and public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

We are aware of a number of companies generally pursuing the development of different enzyme replacement therapies or treatments for vascular calcification disorders and many other companies are focused on rare disease markets. For example, SNF472, a calcification inhibitor, is currently in Phase 3 clinical development for calciphylaxis by Sanifit, and Inositec has product candidates in preclinical development for calcification inhibitors.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. 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 development programs. 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 may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. Because of our primary focus on rare disease, if our product candidates achieve marketing approval, we expect to seek premium pricing.

Technology in the pharmaceutical and biotechnology industries has undergone rapid and significant change, and we expect that it will continue to do so. Any compounds, products or processes that we develop may become obsolete or uneconomical before we recover any expenses incurred in connection with their development.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

We may pursue the in-license or acquisition of rights to complementary technologies and product candidates on an opportunistic basis. However, we may be unable to in-license or acquire any additional technologies or product candidates from third parties. The acquisition and licensing of technologies and product candidates is a competitive area, and a number of more established companies also have similar strategies to in-license or acquire technologies and product candidates that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater 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 in-license or acquire the relevant technology or product candidate on terms that would allow us to make an appropriate return on our investment.

If the market opportunities for our product candidates are smaller than we currently believe, our revenue may be adversely affected, and our business may suffer. Because the target patient populations of our product candidates are small, we must be able to successfully identify patients and capture a significant market share to achieve profitability and growth.

We focus our research and product development on treatments for rare diseases. Given the small number of patients who have the diseases that we are targeting, it is critical to our ability to grow and become profitable that we continue to successfully identify patients with these rare diseases. Our projections of the number of people who have these diseases are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including the scientific and medical literature, industry publications, third-party research, surveys and studies, patient foundations or market research that we conducted, and may prove to be incorrect or contain errors. New studies may change the estimated incidence or prevalence of these diseases. The number of patients may turn out to be lower than expected. The effort to identify patients with diseases we seek to treat is in early stages, and we cannot accurately predict the number of patients for whom treatment might be possible. Additionally, the potentially addressable patient population for each of our product candidates may be limited or may not be amenable to treatment with our product candidates, and new patients may become increasingly difficult to identify or gain access to, which would adversely affect our results of operations and our business.

Further, even if we obtain significant market share for our product candidates, because the potential target populations are very small, we may never achieve profitability despite obtaining such significant market share. For example, the estimated incidence of ENPP1 deficiency is approximately one in 200,000 births worldwide. ABCC6 deficiency is estimated to afflict approximately one per 50,000 individuals, and we believe there are more than 67,000 patients worldwide with ABCC6 deficiency. In addition, while we are pursuing marketing approval for ENPP1 deficiency and ABCC6 deficiency indications, the FDA may only grant approval for more narrow, specific disease indications that would result in a smaller market than we initially sought.

Because there are currently no products approved for the treatment of our target indications, such as ENPP1 and ABCC6 deficiencies, the pricing and reimbursement of our product candidates, if approved, is uncertain, but must be adequate to support commercial infrastructure. In addition, while we are pursuing additional non-genetic indications for INZ-701 such as for calciphylaxis and neointimal proliferation, we may not receive approval for such indications or such indications may not expand the target population for INZ-701 in an amount sufficient to achieve profitability. Furthermore, if we are unable to obtain adequate levels of reimbursement, our ability to successfully market and sell our product candidates will be adversely affected.

Even if we are able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third-party coverage or reimbursement practices or healthcare reform initiatives, which could harm our business.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost effectiveness of our product candidate to other available therapies. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues, if any, we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

Our ability to commercialize any product candidates successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. The availability of coverage and adequacy of reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most patients to be able to afford medical services and pharmaceutical products, including our product candidates. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Coverage and reimbursement may not be available for any product that we commercialize and, even if these are available, the level of reimbursement may not be satisfactory. Reimbursement may affect the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining and maintaining adequate reimbursement for our products may be difficult. We may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies. If coverage and adequate reimbursement are not available or reimbursement is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside of the United States. Moreover, eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution expenses. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases on short notice, and we believe that changes in these rules and regulations are likely.

There can be no assurance that our product candidates, even if they are approved for sale in the United States, in the European Union or in other countries, will be considered medically reasonable and necessary for a specific indication or cost-effective by third-party payors, or that coverage and an adequate level of reimbursement will be available or that third-party payors' reimbursement policies will not adversely affect our ability to sell our product candidates profitably.

Our future growth depends, in part, on our ability to penetrate foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties that, if they materialize, could harm our business.

Our future profitability will depend, in part, on our ability to commercialize our product candidates in markets outside of the United States and the European Union. We are not permitted to market or promote INZ-701 or any other product candidates we develop before we receive approval from the applicable regulatory authority in that foreign market, and we may never receive such regulatory approval for any of our product candidates. To obtain separate marketing approvals in other countries we may be required to comply with numerous and varying regulatory requirements of such countries regarding the safety and efficacy of our product candidates and governing, among other things, clinical trials and commercial sales, pricing and distribution of our product candidates. If we commercialize our product candidates in these foreign markets, we will be subject to additional risks and uncertainties, including:

- economic weakness, including inflation, or political instability in particular economies and markets;
- the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements, many of which vary between countries;
- different medical practices and customs in foreign countries affecting acceptance in the marketplace;
- tariffs and trade barriers, as well as other governmental controls and trade restrictions;
- other trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or foreign governments;
- longer accounts receivable collection times;
- longer lead times for shipping;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is common;
- language barriers for technical training;

- reduced protection of intellectual property rights in some foreign countries, and related prevalence of generic alternatives to therapeutics;
- foreign currency exchange rate fluctuations and currency controls;
- differing foreign reimbursement landscapes;
- uncertain and potentially inadequate reimbursement of our products; and
- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

If risks related to any of these uncertainties materializes, it could have a material adverse effect on our business.

Clinical trial and product liability lawsuits against us could divert our resources and could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of clinical trial and product liability exposure related to the testing of our product candidates in human clinical trials, and we will face an even greater risk if we commercially sell any products that we may develop. While we currently have no products that have been approved for commercial sale, the planned and future use of product candidates by us in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies or others selling such products. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated adverse effects. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- termination of clinical trials;
- withdrawal of marketing approval, recall, restriction on the approval or a “black box” warning or contraindication for an approved drug;
- withdrawal of clinical trial participants;
- significant costs to defend any related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- injury to our reputation and significant negative media attention;
- reduced resources of our management to pursue our business strategy;
- distraction of management’s attention from our primary business; and
- the inability to commercialize any products that we may develop.

We currently hold $10 million in product liability insurance coverage in the aggregate, with a per incident limit of $10 million, which may not be adequate to cover all liabilities that we may incur. We may need

to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. If a successful clinical trial or product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Risks Related to our Dependence on Third Parties

We plan to rely on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, which may prevent or delay our ability to seek or obtain marketing approval for or commercialize our product candidates or otherwise harm our business. If we are not able to maintain these third party relationships or if these arrangements are terminated, we may have to alter our development and commercialization plans and our business could be adversely affected.

We plan to rely on third-party clinical research organizations, in addition to other third parties such as research collaboratives, clinical data management organizations, medical institutions and clinical investigators, to conduct our planned Phase 1/2 clinical trials of INZ-701 and any other clinical trials we conduct. We do not plan to independently conduct clinical trials of INZ-701 or any other product candidate that we may develop. These contract research organizations and other third parties play a significant role in the conduct and timing of these trials and subsequent collection and analysis of data. These third-party arrangements might terminate for a variety of reasons, including a failure to perform by the third parties. If we need to enter into alternative arrangements, our product development activities might be delayed.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Regulatory authorities in Europe and other jurisdictions have similar requirements. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our contract research organizations or trial sites 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 also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully develop and commercialize our product candidates. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the trial, the integrity of the data generated at the applicable clinical trial site may be questioned, and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection of any marketing application we submit to the FDA. Any such delay or rejection could prevent us from commercializing our product candidates.

If any of our relationships with these third-parties terminate, we may not be able to enter into arrangements with alternative third parties or do so on commercially reasonable terms. Switching or adding additional contract research organizations, investigators and other third parties involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new contract research organization commences work. As a result, delays can occur, which could materially impact our ability to meet our desired clinical development timelines. The COVID-19 pandemic and government measures taken in response have also had a significant impact on many contract research organizations. Although we plan to carefully manage our relationships with our contract research organizations, investigators and other third parties, we may nonetheless encounter challenges or delays in the future, which could have a material and adverse impact on our business, financial condition and prospects.

Manufacturing biologic products is complex and subject to product loss for a variety of reasons. We contract with third parties for the manufacture of our product candidates for preclinical 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 or quality, which could delay, prevent or impair our development or commercialization efforts.

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for the manufacture of both drug substance and finished drug product for INZ-701 and any future product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates receive marketing approval. We also rely on these third parties for packaging, labeling, sterilization, storage, distribution and other production logistics. 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. We may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, 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 potential failure to manufacture our product candidate or product according to our specifications;
- the potential failure to manufacture our product candidate or product according to our schedule or at all;
- 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.

We have only limited supply agreements in place with respect to our product candidates, and these arrangements do not extend to commercial supply. We obtain supplies of drug substance and finished drug product for INZ-701 on a purchase order basis. We do not have long term committed arrangements with respect to any of our product candidates or other materials. We are continuing the process of scaling up our manufacturing processes and capabilities with our third-party manufacturers to support future clinical trials. In addition, if we receive marketing approval for any of our product candidates, we will need to establish an agreement for commercial manufacture with a third party.

We or our third-party manufacturers may encounter shortages in the raw materials or active pharmaceutical ingredients necessary to produce our product candidates in the quantities needed for our clinical trials or, if our product candidates are approved, in sufficient quantities for commercialization or to meet an increase in demand, as a result of capacity constraints or delays or disruptions in the market for the raw materials or active pharmaceutical ingredients, including shortages caused by the purchase of such raw materials or active pharmaceutical ingredients by our competitors or others. The failure of us or our third-party manufacturers to obtain the raw materials or active pharmaceutical ingredients necessary to manufacture sufficient quantities of our product candidates, may have a material adverse effect on our business.

Our third-party manufacturers are subject to inspection and approval by regulatory authorities before we can commence the manufacture and sale of any of our product candidates, and thereafter subject to ongoing inspection from time to time. Third-party manufacturers may not be able to comply with current good manufacturing practices, or cGMP, regulations or similar regulatory requirements outside of the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in regulatory actions, such as the issuance of FDA Form 483 notices of observations, warning letters or 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, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

Manufacturing biologic products, such as INZ-701, is complex, especially in large quantities. Biologic products must be made consistently and in compliance with a clearly defined manufacturing process. Accordingly, it is essential to be able to validate and control the manufacturing process to assure that it is reproducible. The manufacture of biologics is extremely susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the product process. We have not yet scaled up the manufacturing process for any of our product candidates for potential commercialization. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could harm our results of operations and cause potential reputational damage. Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. As a result, we may not obtain access to these facilities on a priority basis or at all. 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 marketing approval. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If any of our current contract manufacturers cannot perform as agreed, we may be required to replace such manufacturers. Although we believe that there are several potential alternative manufacturers who could manufacture our product candidates, we may incur added costs and delays in identifying and qualifying any such replacement or be unable to reach agreement with an alternative manufacturer. In addition, the COVID-19 pandemic may impact our ability to procure sufficient supplies for the development of our product candidates. The extent of this impact will depend on the severity and duration of the spread of the virus, and the actions undertaken to contain COVID-19 or treat its effects.

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 marketing approval on a timely and competitive basis.

We may enter into collaborations with third parties for the development or commercialization of our product candidates. If our collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates and our business could be adversely affected.

While we hold development and commercialization rights to our pipeline and programs, including INZ-701, on a worldwide basis, we could in the future enter into development, distribution, marketing or funding arrangements with third parties with respect to our existing or future product candidates. Our likely collaborators for any sales, marketing, co-promotion, distribution, development, licensing or broader collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. We are not currently party to any such arrangement. However, if we do enter into any such arrangements with any third parties in the future, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities and efforts to successfully perform the functions assigned to them in these arrangements.

Collaborations that we enter into may not be successful, and any success will depend heavily on the efforts and activities of such collaborators. Collaborations pose a number of risks, including the following:

- collaborators have significant discretion in determining the amount and timing of efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development of our product candidates or may elect not to continue or renew development programs based on results of clinical trials or other studies, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition or business combination, that divert resources or create competing priorities;
- collaborators may not pursue commercialization of any product candidates that achieve marketing approval or may elect not to continue or renew commercialization programs based on results of clinical trials or other studies, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition or business combination, that may divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- we may not have access to, or may be restricted from disclosing, certain information regarding product candidates being developed or commercialized under a collaboration and, consequently, may have limited ability to inform our stockholders about the status of such product candidates on a discretionary basis;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates and products if the collaborators believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the commercialization of our product candidates; a collaborator may fail to comply with applicable regulatory requirements regarding the development, manufacture, distribution or marketing of a product candidate or product;

- a collaborator may seek to renegotiate or terminate their relationship with us due to unsatisfactory clinical results, manufacturing issues, a change in business strategy, a change of control or other reasons;

- a collaborator with marketing and distribution rights to one or more of our product candidates that achieve marketing approval may not commit sufficient resources to the marketing and distribution of such product or products;

- disagreements with collaborators, including disagreements over intellectual property or proprietary rights, contract interpretation or the preferred course of development, might cause delays or terminations of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

- collaborators may not properly obtain, maintain, enforce, defend or protect our intellectual property or proprietary rights or may use our proprietary information in such a way as to potentially lead to disputes or legal proceedings that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;

- disputes may arise with respect to the ownership of intellectual property developed pursuant to our collaborations;

- collaborators may infringe, misappropriate or otherwise violate the intellectual property or proprietary rights of third parties, which may expose us to litigation and potential liability; and

- collaborations may be terminated for the convenience of the collaborator, and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner, or at all. If any collaborations that we enter into do not result in the successful development and commercialization of products or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. If we do not receive the funding we expect under these agreements, our development of our product candidates could be delayed and we may need additional resources to develop our product candidates. All of the risks relating to product development, regulatory approval and commercialization described in this prospectus also apply to the activities of our collaborators.

Additionally, subject to its contractual obligations to us, if a collaborator of ours is involved in a business combination, the collaborator might deemphasize or terminate the development or commercialization of any product candidate licensed to it by us. If one of our collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and our perception in the business and financial communities could be adversely affected.

If we are not able to establish or maintain collaborations, we may have to alter our development and commercialization plans and our business could be adversely affected.

We may decide to collaborate with pharmaceutical or biotechnology companies for the development and potential commercialization of one or more of our product candidates. We face significant competition in seeking appropriate collaborators, and a number of more established companies may also be pursuing strategies to license or acquire third-party intellectual property rights that we consider attractive. These established companies may have a competitive advantage over us due to their size, financial 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. 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 evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, 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. We may also be restricted under future license agreements from entering into 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 and biotechnology companies that have resulted in a reduced number of potential future collaborators.

If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms or at all, we may have to curtail the development of a product candidate, 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 fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market.

We have agreements with Yale to supplement our internal research and development program. If Yale decides to discontinue or devote less resources to such research, our research efforts could be diminished.

Our set of arrangements with Yale provide us with access to certain of Yale's intellectual property and to Professor Demetrios Braddock's laboratory in a manner that we believe closely aligns our scientific interests with those of Yale. We are a party to both a license agreement and a sponsored research agreement with Yale. While Yale has contractual obligations to us, it is an independent entity and is not under our control or the control of our officers or directors. The license agreement is structured to provide Yale with license maintenance fees, development and regulatory milestone payments, royalties on net sales of products, and a portion of sublicense income that we receive. Upon the scheduled expiration of the Yale sponsored research agreement in December 2021, we may not be able to renew the research agreement or any renewal could be on terms less favorable to us than those contained in the existing agreement. Furthermore, either we or Yale may terminate the sponsored research agreement for convenience following a specified notice period. If Yale decides to not renew or to terminate the Yale research agreement or decides to devote fewer resources to such activities, our research efforts would be diminished, while our royalty obligations to Yale would continue unmodified.

Our license agreement with Yale also provides that so long as Professor Braddock remains meaningfully involved in our company by serving as a member of our scientific advisory board or has a similar advisory arrangement or has an active consulting arrangement with us, and so long as he is an employee or faculty member (including emeritus faculty member) at Yale, any future invention by Professor Braddock's laboratory in the license agreement's field is included in the licensed intellectual property. If Professor Braddock were to leave Yale or no longer be meaningfully involved with us, we would no longer have access to future inventions in the license agreement's field from Yale.

Additionally, the license granted under the license agreement terminates after a specified period following a qualifying change of control, unless we elect or our successor or assignee elects to continue the

agreement. If the license is terminated after such a change of control, royalty payments would continue to be paid on certain licensed products.

We may engage in acquisitions or in-license transactions that could disrupt our business, cause dilution to our stockholders or reduce our financial resources.

In the future, we may enter into transactions to in-license or acquire other businesses, intellectual property, technologies, product candidates or products. If we determine to pursue a particular transaction, we may not be able to complete the transaction on favorable terms, or at all. Any in-licenses or acquisitions we complete may not strengthen our competitive position, and these transactions may be viewed negatively by customers or investors. We may decide to incur debt in connection with an in-license or acquisition or issue our common stock or other equity securities to the stockholders of the target company, which would reduce the percentage ownership of our existing stockholders. We could incur losses resulting from undiscovered liabilities that are not covered by the indemnification we may obtain from the seller. In addition, we may not be able to successfully integrate the acquired personnel, technologies and operations into our existing business in an effective, timely and nondisruptive manner. In-license and acquisition transactions may also divert management attention from day-to-day responsibilities, increase our expenses and reduce our cash available for operations and other uses. We cannot predict the number, timing or size of future in-licenses or acquisitions or the effect that any such transactions might have on our operating results.

Risks Related to our Intellectual Property

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

Our success depends in large part on our ability to obtain, maintain and enforce protection of the intellectual property we may own solely and jointly with others or may license from others, particularly patents, in the United States and other countries with respect to any proprietary technology and product candidates we develop. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our technologies and product candidates that are important to our business and by in-licensing intellectual property related to such technologies and product candidates. If we are unable to obtain, maintain or enforce patent protection with respect to any proprietary technology or product candidate, our business, financial condition, results of operations and prospects could be materially harmed.

The patent prosecution process is expensive, time-consuming and complex, and we may not be able to file, prosecute, maintain, defend or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. 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 do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain, enforce and defend the patents, covering technology that we license from third parties. Therefore, these in-licensed patents and applications may not be prepared, filed, prosecuted, maintained, defended and enforced in a manner consistent with the best interests of our business.

The patent position of pharmaceutical and biotechnology companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the scope of patent protection outside of the United States is uncertain and laws of foreign countries may not protect our rights to the same extent as the laws of the United States or vice versa. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. With respect to both owned and in-licensed patent rights, we cannot predict whether the patent applications we and our licensors are currently pursuing will issue as patents in any particular jurisdiction or

whether the claims of any issued patents will provide sufficient protection from competitors. Further, we may not be aware of all third-party intellectual property rights potentially relating to our product candidates. In addition, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not published at all. Therefore, neither we nor our licensors can know with certainty whether either we or our licensors were the first to make the inventions claimed in the patents and patent applications we own or in-license now or in the future, or that either we or our licensors 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 are highly uncertain. Moreover, our owned or in-licensed pending and future patent applications may not result in patents being issued which protect our technology and product candidates, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents and our ability to obtain, protect, maintain, defend and enforce our patent rights, narrow the scope of our patent protection and, more generally, could affect the value or narrow the scope of our patent rights.

Moreover, we or our licensors may be subject to a third-party preissuance submission of prior art to the United States Patent and Trademark Office, or USPTO, or become involved in opposition, derivation, revocation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or product candidates and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize drugs without infringing third-party patent rights. If the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Our owned or licensed patent estate includes patent applications, many of which are at an early stage of prosecution. The coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if our owned or in-licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and in-licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges 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 products, or limit the duration of the patent protection of our technology and product candidates. Such proceedings also may result in substantial cost and require significant time from our management and employees, even if the eventual outcome is favorable to us. 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. Furthermore, our competitors may be able to circumvent our owned or in-licensed patents by developing similar or alternative technologies or products in a non-infringing manner. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing technology and products similar or identical to any of our technology and product candidates.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics or biosimilars. 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, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

If we are unable to obtain licenses from third parties on commercially reasonable terms or fail to comply with our obligations under such agreements, our business could be harmed.

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. 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 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 an obligation on our part to pay royalties and/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.

If we are unable to obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may be required to expend significant time and resources to redesign our technology, product candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected technology and product candidates, which could harm our business, financial condition, results of operations and prospects significantly.

Additionally, if we fail to comply with our obligations under any license agreements, our counterparties may have the right to terminate these agreements, in which event we might not be able to develop, manufacture or market, or may be forced to cease developing, manufacturing or marketing, any product that is covered by these agreements or may face other penalties under such agreements. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements, or restrictions on our ability to freely assign or sublicense our rights under such agreements when it is in the interest of our business to do so, may result in our having to negotiate new or reinstated agreements with less favorable terms, cause us to lose our rights under these agreements, including our rights to important intellectual property or technology or impede, or delay or prohibit the further development or commercialization of one or more product candidates that rely on such agreements.

Our product candidates 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 biological products that are biosimilar to or interchangeable with an FDA-approved reference biological 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 approved 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 approved. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full biologics license application, or 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 product candidate of ours that may be approved as a biological 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 product candidates 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 approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

If we do not obtain patent term extension for any product candidates we may develop, our business may be materially harmed.

In the United States, the term of a patent that covers an FDA-approved drug may, in certain cases, be eligible for a patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, as compensation for the loss of a patent term during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years, but patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Only one patent among those eligible for an extension and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and certain other non-United States jurisdictions to extend the term of a patent that covers an approved drug. While, in the future, if and when our product candidates receive FDA approval, we expect to apply for patent term extensions on patents covering those product candidates, there is no guarantee that the applicable authorities, including the FDA, will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions. We may not be granted patent term extension either in the United States or in any foreign country because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than we request. If we are unable to obtain any patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following the expiration of our patent rights, and our business, financial condition, results of operations and prospects could be materially harmed.

Changes to patent laws in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of patent laws in the United States, including patent reform legislation such as the Leahy-Smith America Invents Act, or the Leahy-Smith Act, could increase the uncertainties and costs surrounding the prosecution of our owned or in-licensed patent applications and the maintenance, enforcement or defense of our owned or in-licensed issued patents. The Leahy-Smith Act includes a number of significant changes to United States patent law. These changes include provisions that affect the way patent applications are prosecuted, redefine prior art, provide more efficient and cost-effective avenues for competitors to challenge the validity of patents, and enable third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent at USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith Act, the United States transitioned to a first-to-file system in which, assuming that the other statutory requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. As such, the Leahy-Smith Act and its implementation could

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 have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our patent rights and our ability to protect, defend and enforce our patent rights in the future.

The federal government retains certain rights in inventions produced with its financial assistance under the Bayh-Dole Act. The federal government retains a "nonexclusive, nontransferable, irrevocable, paid-up license" for its own benefit. The Bayh-Dole Act also provides federal agencies with "march-in rights". March-in rights allow the government, in specified circumstances, to require the contractor or successors in title to the patent to grant a "nonexclusive, partially exclusive, or exclusive license" to a "responsible applicant or applicants." If the patent owner refuses to do so, the government may grant the license itself. We collaborate with a number of universities with respect to certain of our research and development. While it is our policy to avoid engaging our university collaborators in projects in which there is a risk that federal funds may be commingled, we cannot be sure that any co-developed intellectual property will be free from government rights pursuant to the Bayh-Dole Act. If, in the future, we co-own or in-license technology which is critical to our business that is developed in whole or in part with federal funds subject to the Bayh-Dole Act, our ability to enforce or otherwise exploit patents covering such technology may be adversely affected.

Although we or our licensors are not currently involved in any litigation, we may become involved in lawsuits to protect or enforce our patent or other intellectual property rights, which could be expensive, time-consuming and unsuccessful.

Competitors and other third parties may infringe, misappropriate or otherwise violate our or our licensor's issued patents or other intellectual property. It may be difficult to detect infringers who do not advertise the components that are used in their products. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's product. To counter infringement or misappropriation, we or our licensors may need to file infringement, misappropriation or other intellectual property related claims, which can be expensive and time-consuming and can distract our management and scientific personnel. There can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Any claims we assert against perceived infringers could provoke such parties to assert counterclaims against us alleging that we infringe, misappropriate or otherwise violate their intellectual property.

In addition, in a patent infringement proceeding, such parties could counterclaim that the patents we or our licensors have asserted are invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including 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, during prosecution. Third parties may institute such claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions, such as opposition proceedings. The outcome following legal assertions of invalidity and unenforceability is unpredictable. Similarly, if we or our licensors assert trademark infringement claims, a court may determine that the marks we or our licensors have asserted are invalid or unenforceable, or that the party against whom we or

our licensors have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks, which could materially harm our business and negatively affect our position in the marketplace.

An adverse result in any such proceeding could put one or more of our owned or in-licensed patents at risk of being invalidated or interpreted narrowly, could put any of our owned or in-licensed patent applications at risk of not yielding an issued patent, and could limit our or our licensor's ability to assert those patents against those parties or other competitors and curtail or preclude our ability to exclude third parties from developing and commercializing similar or competitive products. A court may also refuse to stop the third party from using the technology at issue in a proceeding on the grounds that our owned or in-licensed patents do not cover such technology. Even if we establish infringement, a court may not order the third party to stop using the technology at issue and instead award only monetary damages to us, which may not be an adequate remedy. 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 or trade secrets could be compromised by disclosure during this type of litigation. There could also 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 material adverse effect on the price of our common stock. Any of the foregoing could allow such third parties to develop and commercialize competing technologies and products and have a material adverse impact on our business, financial condition, results of operations and prospects.

Interference or derivation proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome 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 or at all, or if a non-exclusive license is offered and our competitors gain access to the same technology. Our defense of litigation or interference or derivation proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. In addition, the uncertainties associated with litigation could have a material adverse effect on 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 partnerships that would help us bring our product candidates to market.

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 and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. There is considerable patent and other intellectual property litigation in the pharmaceutical and biotechnology industries. We may become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our technology and product candidates, including interference proceedings, post grant review, *inter partes* review, and derivation proceedings before the USPTO and similar proceedings in foreign jurisdictions, such as opposition proceedings before the European Patent Office. 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 pursuing development candidates. As the pharmaceutical and biotechnology industries expand and more patents are issued, the risk increases that our technologies or product candidates that we may identify may be subject to claims of infringement of the patent rights of third parties.

We are aware of certain third-party patents and third-party patent applications in the field of ENPP1 that may (in the case of patent applications, should they issue as patents) be asserted to encompass our ENPP1 technology. For example, we are aware of several third-party families of U.S. patents, patent applications, and

foreign counterparts that relate to ENPP1 compositions and methods of treatment, where the earliest priority dates of some of these families pre-date the priority dates of one or more of the patents and patent applications owned or exclusively licensed by us.

The legal threshold for initiating litigation or contested proceedings is low, so even lawsuits or proceedings with a low probability of success might be initiated and require significant resources to defend. Litigation and contested proceedings can also be expensive and time-consuming, and our adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we can. The risks of being involved in such litigation and proceedings may increase if and as our product candidates near commercialization and as we gain the greater visibility associated with being a public company. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of merit. Even if we diligently search third-party patents for potential infringement by our products or product candidates, we may not successfully find patents our products or product candidates may infringe. We may not be aware of all such intellectual property rights potentially relating to our technology and product candidates and their uses, or we may incorrectly conclude that third party intellectual property is invalid or that our activities and product candidates do not infringe such intellectual property. Thus, we do not know with certainty that our technology and product candidates, or our development and commercialization thereof, do not and will not infringe, misappropriate or otherwise violate any third party's intellectual property.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations or methods, such as methods of manufacture or methods for treatment, related to the discovery, use or manufacture of the product candidates that we may identify or related to our technologies. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that the product candidates that we may identify may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, as noted above, there may be existing patents that we are not aware of or that we have incorrectly concluded are invalid or not infringed by our activities. If any third-party patents were held by a court of competent jurisdiction to cover, for example, the manufacturing process of the product candidates that we may identify, any molecules 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 such product candidate unless we obtained a license under the applicable patents, or until such patents expire.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize the product candidates that we may identify. Defense of these claims, regardless of their merit, would 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 against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

We may choose to take a license or, if we are found to infringe, misappropriate or otherwise violate a third party's intellectual property rights, we could also be required to obtain a license from such third party to continue developing, manufacturing and marketing our technology and product candidates. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us and could require us to make substantial licensing and royalty payments. We could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technology or product. In addition, we could be found liable for significant monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right and could be forced to indemnify our customers or collaborators. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our

business operations, which could materially harm our business. In addition, we may be forced to redesign our product candidates, seek new regulatory approvals and indemnify third parties pursuant to contractual agreements. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar material adverse effect on our business, financial condition, results of operations and prospects.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

While we seek to protect the trademarks and trade names we use in the United States and in other countries, we may be unsuccessful in obtaining registrations or otherwise protecting these trademarks and trade names, which we need to build name recognition in our markets of interest and among potential partners or customers. We rely on both registration and common law protection for our trademarks. Our registered or unregistered trademarks or trade names may be challenged, infringed, diluted or declared generic, or determined to be infringing on other marks. At times, competitors may adopt trademarks and trade names similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks. If we are unable to protect our rights to trademarks and trade names, we may be prevented from using such marks and names unless we enter into appropriate royalty, license or coexistence agreements, which may not be available or may not be available on commercially reasonable terms.

During trademark registration proceedings, we may receive rejections. Although we would be given an opportunity to respond to those rejections, 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 to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. Effective trademark protection may not be available or may not be sought in every country in which our products are made available. Any name we propose to use for our products in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of our proposed product names, we may be required to expend significant additional resources in an effort to identify a usable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. If we are unable to 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.

Intellectual property litigation or other legal proceedings relating to intellectual property 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 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 may also have an advantage in such proceedings due to their more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of intellectual property litigation or other proceedings could compromise our ability to compete in the marketplace.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance, renewal and annuity fees and various other government fees on any issued patent and pending patent application must be paid to the USPTO and foreign patent agencies in several stages or annually over the lifetime of our patents and patent applications. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In certain circumstances, we rely on our licensing partners to pay these fees to, or comply with the procedural and documentary rules of, the relevant patent agency. With respect to our patents, we rely on an annuity service, outside firms and outside counsel to remind us of the due dates and to make payment after we instruct them to do so. While an inadvertent lapse can in many 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. Non-compliance events that could result in abandonment or lapse of a patent or patent application include 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, potential competitors might be able to enter the market with similar or identical products or technology. If we or our licensors fail to maintain the patents and patent applications covering our product candidates, it would have a material adverse effect on our business, financial condition, results of operations and prospects.

If we fail to comply with our obligations in our current and future intellectual property licenses and funding arrangements with third parties, or otherwise experience disruptions to our business relationships with our licensors, we could lose intellectual property rights that are important to our business.

We are party to a license agreement with Yale that provides us with the foundational intellectual property rights for our lead product candidate, INZ-701. This license agreement imposes diligence, development and commercialization timelines, and milestone payment, royalty, insurance and other obligations on us. If we fail to comply with such obligations, including achieving specified milestone events, Yale may have the right to terminate the license agreement or require us to grant them certain rights, in which event we might not be able to develop, manufacture or market any product that is covered by the intellectual property we in-license from them and may face other penalties. For example, Yale would have the right to terminate the license agreement if we do not file an IND for INZ-701 with the FDA on or before December 31, 2020. Any such occurrence could materially adversely affect the value of any product candidate being developed under any such agreement.

For a variety of purposes, we will likely enter into additional licensing and funding arrangement with third parties that may impose similar obligations on us. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or reinstated agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property or technology, which would have a material adverse effect on our business, financial condition, results of operations and prospects. While we still face all of the risks described herein with respect to those agreements, we cannot prevent third parties from also accessing those technologies. In addition, our licenses may place restrictions on our future business opportunities.

In addition to the above risks, intellectual property rights that we license in the future may include sublicenses under intellectual property owned by third parties, in some cases through multiple tiers. The actions of our licensors may therefore affect our rights to use our sublicensed intellectual property, even if we are in compliance with all of the obligations under our license agreements. Should our licensors or any of the upstream licensors fail to comply with their obligations under the agreements pursuant to which they obtain the rights that are sublicensed to us, or should such agreements be terminated or amended, our ability to develop and commercialize our product candidates may be materially harmed.

Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology from third parties are 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 have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected technology and product candidates, which could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Further, licensors could retain the right to prosecute and defend the intellectual property rights licensed to us, in which case we would depend on our licensors to control the prosecution, maintenance and enforcement of all of our licensed and sublicensed intellectual property, and even when we do have such rights, we may require the cooperation of our licensors and upstream licensors, which may not be forthcoming. For example, under the license agreement with Yale, any patent applications and issued patents under the agreement remain the property of Yale, and Yale has the right to choose patent counsel. Licensors may determine not to pursue litigation against other companies or may pursue such litigation less aggressively than we would. Our business could be adversely affected if we or our licensors are unable to prosecute, maintain and enforce our licensed and sublicensed intellectual property effectively.

Our current or future licensors may have relied on third-party consultants or collaborators or on funds from third parties such that our licensors are not the sole and exclusive owners of the patents and patent applications we in-license. If other third parties have ownership rights to patents or patent applications we in-license, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

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 our ability to develop and commercialize product candidates and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying intellectual property fails to provide the intended exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products and technologies identical to ours. This could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. 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 United States, and even where such protection is nominally available, judicial and governmental enforcement of such intellectual property rights may be lacking. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States 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 or licenses but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

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 biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. In addition, certain jurisdictions do not protect to the same extent or at all inventions that constitute new methods of treatment.

Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put 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 and proprietary 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 or any of our licensors is forced to grant a license to third parties with respect to any patents 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 be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets or other intellectual property as an inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or our or our licensors' ownership of our owned or in-licensed patents, trade secrets or other intellectual property. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our product candidates. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to claims by third parties asserting that our employees, consultants or contractors have wrongfully used or disclosed confidential information of third parties, or we have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees, consultants and contractors were previously employed at universities or other pharmaceutical or biotechnology companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that these individuals or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims.

In addition, while it is our policy to require our employees, consultants and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our intellectual property assignment agreements with them may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims 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 conditions, results of operations and prospects.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could have a material adverse effect on our competitive business position and prospects. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products, which license may not be available on commercially reasonable terms, or at all, or such license may be non-exclusive. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to our management and employees.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and product candidates, we also rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect our trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract research organizations, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants, but we cannot guarantee that we have entered into such agreements with each party that may have or has had access to our trade secrets or proprietary technology. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Detecting the disclosure or misappropriation of a trade secret and enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside of the United States are less willing or unwilling to protect trade secrets. 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, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make product candidates that are similar to ours but that are not covered by the claims of the patents that we own;
- we, or our license partners or current or future collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent applications that we license or may own in the future;
- we, or our license partners or current or future collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or in-licensed intellectual property rights;
- it is possible that our owned or in-licensed pending patent applications or those we may own or in-license in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we cannot ensure that any of our patents, or any of our pending patent applications, if issued, or those of our licensors, will include claims having a scope sufficient to protect our product candidates;
- we cannot ensure that any patents issued to us or our licensors will provide a basis for an exclusive market for our commercially viable product candidates or will provide us with any competitive advantages;
- the U.S. Supreme Court, other federal courts, Congress, the USPTO or similar foreign authorities may change the standards of patentability and any such changes could narrow or invalidate, or change the scope of, our or our licensors' patents;
- patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time;
- we cannot ensure that our commercial activities or product candidates will not infringe upon the patents of others;
- we cannot ensure that we will be able to successfully commercialize our product candidates on a substantial scale, if approved, before the relevant patents that we own or license expire;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and

- 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 intellectual property.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks Related to Regulatory Approval and Other Legal Compliance Matters

Even if we complete the necessary preclinical studies and clinical trials, the marketing approval process of the FDA, the EMA and comparable foreign authorities is expensive, time-consuming, and uncertain and may prevent us from obtaining approvals for the commercialization of any product candidates we develop. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize, or will be delayed in commercializing, product candidates we develop, and our ability to generate revenue will be materially impaired.

Any product candidates we develop and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, and distribution, are subject to comprehensive regulation by the FDA and other regulatory authorities in the United States, the EMA and other regulatory authorities in the European Union and by comparable authorities in other countries. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate in a given jurisdiction. We have not received approval to market any product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party contract research organizations 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 biologic product candidate's safety, purity, and potency. 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. Any product candidates we develop 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 marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity, and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. The FDA, the EMA and comparable authorities in other countries have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical, or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit, or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

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

Failure to obtain marketing approval in foreign jurisdictions would prevent any product candidates we develop from being marketed in such jurisdictions, which, in turn, would materially impair our ability to generate revenue.

In order to market and sell any product candidates we develop in the European Union and many other foreign jurisdictions, we or our collaborators must obtain separate marketing approvals and comply with

numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We or these third parties may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. The failure to obtain approval in one jurisdiction may negatively impact our ability to obtain approval elsewhere. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any jurisdiction, which would materially impair our ability to generate revenue.

Additionally, on June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as Brexit. Following protracted negotiations, the United Kingdom left the European Union on January 31, 2020. Under the withdrawal agreement, there is a transitional period until December 31, 2020 (extendable up to two years). Discussions between the United Kingdom and the European Union have so far mainly focused on finalizing withdrawal issues and transition agreements but have been extremely difficult to date. To date, only an outline of a trade agreement has been reached. Much remains open but the Prime Minister has indicated that the United Kingdom will not seek to extend the transitional period beyond the end of 2020. If no trade agreement has been reached before the end of the transitional period, there may be significant market and economic disruption. The Prime Minister has also indicated that the UK will not accept high regulatory alignment with the European Union.

Since the regulatory framework for pharmaceutical products in the United Kingdom covering quality, safety, and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales, and distribution of pharmaceutical products is derived from European Union directives and regulations, Brexit could materially impact the future regulatory regime that applies to products and the approval of product candidates in the United Kingdom. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, may force us to restrict or delay efforts to seek regulatory approval in the United Kingdom for our product candidates, which could significantly and materially harm our business.

Fast track designation by the FDA may not actually lead to a faster development or regulatory review or approval process, and does not assure FDA approval of our product candidates.

If a product candidate is intended for the treatment of a serious or life threatening condition and the product candidate demonstrates the potential to address unmet medical need for this condition, the sponsor may apply for FDA fast track designation. However, a fast track designation does not ensure that the product candidate will receive marketing approval or that approval will be granted within any particular timeframe. As a result, while we may seek and receive fast track designation for our product candidates, we may not experience a faster development process, review or approval compared to conventional FDA procedures. In addition, 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.

A breakthrough therapy designation by the FDA for our 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 marketing approval.

A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug 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 drugs and biologics 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. Drugs designated as breakthrough therapies by the FDA are also eligible for 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. Even if we receive breakthrough therapy designation, the receipt of such designation for a product candidate may not result in a faster development process, review or approval compared to drugs 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 the products no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Priority review designation by the FDA may not lead to a faster regulatory review or approval process and, in any event, does not assure FDA approval of our product candidates.

If the FDA determines that a product candidate offers major advances in treatment or provides a treatment where no adequate therapy exists, 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 certain of 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 mean a faster regulatory review 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 thereafter.

Accelerated approval by the FDA, even if granted for our 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 marketing approval.

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 biomarker efficacy 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. The FDA or other applicable regulatory agency makes the determination regarding whether a biomarker efficacy endpoint is reasonably likely to predict long-term clinical benefit.

We may seek approval of our product candidates using the FDA's accelerated approval pathway. Prior to seeking such accelerated approval, we will seek feedback from the FDA and otherwise evaluate our ability to seek and receive such accelerated approval. As a condition of approval, the FDA may require that a sponsor of a drug or biologic product candidate receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. These confirmatory trials must be completed with due diligence and we may be required to evaluate different or additional endpoints in these post-marketing confirmatory trials. 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.

There can be no assurance that the FDA will agree with any biomarker efficacy endpoints that we propose, or that we will decide to pursue or submit an NDA for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that, after feedback from FDA,

we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval or under another expedited regulatory designation, there can be no assurance that such submission or application will be accepted or that any expedited review or approval will be granted on a timely basis, or at all.

Moreover, as noted above, for drugs granted accelerated approval, the FDA typically requires post-marketing confirmatory trials to evaluate the anticipated effect on IMM or other clinical benefit. These confirmatory trials must be completed with due diligence. We may be required to evaluate additional or different clinical endpoints in these post-marketing confirmatory trials. These confirmatory trials may require enrollment of more patients than we currently anticipate and will result in additional costs, which may be greater than the estimated costs we currently anticipate. The FDA may withdraw approval of a product candidate approved under the accelerated approval pathway if, for example, the trial required to verify the predicted clinical benefit of our product candidate fails to verify such benefit or does not demonstrate sufficient clinical benefit to justify the risks associated with the drug. The FDA may also withdraw approval if other evidence demonstrates that our product candidate is not shown to be safe or effective under the conditions of use, we fail to conduct any required post approval trial of our product candidate with due diligence or we disseminate false or misleading promotional materials relating to our product candidate. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our product candidates, or withdrawal of a product candidate, would result in a longer time period for commercialization of such product candidate, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

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.

We may not be able to obtain or maintain orphan drug exclusivity for INZ-701 or any other product candidates we develop for one or more indications, and even if we do, that exclusivity may not prevent the FDA or the EMA from approving other competing products.

Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug or biologic intended to treat a rare disease or condition. A similar regulatory scheme governs approval of orphan products by the EMA in the European Union. Generally, if a product candidate with an orphan drug designation subsequently receives the first marketing 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 for the same therapeutic indication for that time period. The applicable period is seven years in the United States and ten years in the European Union. The exclusivity period in the European Union can be reduced to six years if a product no longer meets the criteria for orphan drug designation, in particular if the product is sufficiently profitable so that market exclusivity is no longer justified.

The FDA and the EMA have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency. We have applied for orphan drug designation from the FDA for INZ-701 for ABCC6 deficiency, but our initial application was not granted. Although we have received an extension of time to submit an amendment to our application, there is no guarantee that any amendment we submit will result in the FDA granting orphan drug designation for INZ-701 for ABCC6 deficiency.

In order for the FDA to grant orphan drug exclusivity to one of our products, the agency must find that the product is indicated for the treatment of a condition or disease with a patient population of fewer than 200,000 individuals annually in the United States. The FDA may conclude that the condition or disease for which we seek orphan drug exclusivity does not meet this standard. Even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition. In addition, 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. Orphan drug exclusivity may also be lost if the FDA or EMA 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 the patients with the rare disease or condition.

On August 3, 2017, the Congress passed the FDA Reauthorization Act of 2017, or the FDARA. FDARA, among other things, codified the FDA's pre-existing regulatory interpretation, to require that a drug sponsor demonstrate the clinical superiority of an orphan drug that is otherwise the same as a previously approved drug for the same rare disease in order to receive orphan drug exclusivity. The new legislation reverses prior precedent holding that the Orphan Drug Act unambiguously requires that the FDA recognize the orphan exclusivity period regardless of a showing of clinical superiority. The FDA may further reevaluate the Orphan Drug Act and its regulations and policies. We do not know if, when, or how the FDA may change the orphan drug regulations and policies in the future, and it is uncertain how any changes might affect our business. Depending on what changes the FDA may make to its orphan drug regulations and policies, our business could be adversely impacted.

We may seek a Rare Pediatric Disease Designation, or RPDD, for one or more of our product candidates. However, a BLA for one or more of our product candidates may not meet the eligibility criteria for a priority review voucher upon approval.

With enactment of the Food and Drug Administration Safety and Innovation Act in 2012, Congress authorized the FDA to award priority review vouchers to sponsors of certain rare pediatric disease product applications that meet the criteria specified in the law. This provision is designed to encourage development of new drug and biological products for prevention and treatment of certain rare pediatric diseases. Specifically, under this program, a sponsor who receives an approval for a drug or biologic for a "rare pediatric disease" may qualify for a voucher that can be redeemed to receive a priority review of a subsequent marketing application for a different product. The sponsor of a rare pediatric disease drug product receiving a priority review voucher may transfer (including by sale) the voucher to another sponsor. The voucher may be further transferred any number of times before the voucher is used, as long as the sponsor making the transfer has not yet submitted the application.

For the purposes of this program, a "rare pediatric disease" is a (a) serious or life-threatening disease in which the serious or life-threatening manifestations primarily affect individuals aged from birth to 18 years, including age groups often called neonates, infants, children, and adolescents; and (b) rare disease or conditions within the meaning of the Orphan Drug Act. The FDA may determine that a BLA for one or more of our product candidates does not meet the eligibility criteria for a priority review voucher upon approval. Moreover, even if one or more of our product candidates does satisfy those criteria, the product will need to be designated as a drug for a rare pediatric disease before September 30, 2020, and licensed before September 30, 2022, in order to be granted a rare disease priority review voucher.

Even if we, or any collaborators we may have, obtain marketing approvals for any product candidates we develop, the terms of approvals and ongoing regulation of our products could require the substantial expenditure of resources and may limit how we, or they, manufacture and market our products, which could materially impair our ability to generate revenue.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising, and promotional activities for such product, will be subject to continual requirements of and review by the FDA, the EMA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to quality control, quality assurance and corresponding maintenance of records and documents, and requirements regarding the distribution of samples to physicians and

recordkeeping. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product.

Accordingly, assuming we, or any collaborators we may have, receive marketing approval for one or more product candidates we develop, we, and such collaborators, and our and their contract manufacturers will continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance, and quality control. If we and such collaborators are not able to comply with post-approval regulatory requirements, we and such collaborators could have the marketing approvals for our products withdrawn by regulatory authorities and our, or such collaborators', ability to market any future products could be limited, which could adversely affect our ability to achieve or sustain profitability. Further, the cost of compliance with post-approval regulations may have a negative effect on our business, operating results, financial condition, and prospects.

Any product candidate for which we obtain marketing approval could be subject to restrictions or withdrawal from the market, and we may be subject to substantial penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

The FDA and other regulatory agencies closely regulate the post-approval marketing and promotion of products to ensure that they are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA and other regulatory agencies impose stringent restrictions on manufacturers' communications regarding off-label use, and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing by the FDA and other federal and state enforcement agencies, including the Department of Justice. Violation of the Federal Food, Product, and Cosmetic Act and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription products may also lead to investigations or allegations of violations of federal and state health care fraud and abuse laws and state consumer protection laws.

In addition, later discovery of previously unknown problems with our products, manufacturers, or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on the distribution or use of a product;
- requirements to conduct post-marketing clinical trials;
- receipt of warning or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution, or disgorgement of profits or revenue;
- suspension or withdrawal of marketing approvals;

- suspension of any ongoing clinical trials;
- refusal to permit the import or export of our products;
- product seizure; and
- injunctions or the imposition of civil or criminal penalties.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize any product candidates we develop and adversely affect our business, financial condition, results of operations, and prospects.

Regulatory reform may limit the FDA's ability to engage in oversight and implementation activities in the normal course, and that could negatively impact our business.

The current presidential administration has taken several executive actions, including the issuance of a number of executive orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine regulatory and oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. On January 30, 2017, the president issued an executive order, applicable to all executive agencies, including the FDA, that requires that for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the agency shall identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This executive order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the executive order requires agencies to identify regulations to offset any incremental cost of a new regulation. In interim guidance issued by the Office of Information and Regulatory Affairs within the Office of Management and on February 2, 2017, the current presidential administration indicates that the "two-for-one" provisions may apply not only to agency regulations, but also to significant agency guidance documents. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose constraints on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted.

Our relationships with healthcare providers, physicians 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, contractual damages, reputational harm, and diminished profits and future earnings.

Healthcare providers, physicians, and third-party payors play a primary role in the recommendation and prescription of any product candidates that we develop for which we obtain marketing 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 products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- the federal healthcare 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;

- the federal False Claims Act imposes criminal and civil penalties, including 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 or approval from Medicare, Medicaid, or other government payors that are false or fraudulent or making a false statement to avoid, decrease, or conceal an obligation to pay money to the federal government, with potential liability including mandatory treble damages and significant per-claim penalties, currently set at $11,181 to $22,363 per false claim;

- the federal civil monetary penalties laws, which impose civil fines for, among other things, the offering or transfer of 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 healthcare program, unless an exception applies;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as further amended by the Health Information Technology for Economic and Clinical Health Act, which imposes certain requirements, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information without appropriate authorization by entities subject to the rule, such as health plans, health care clearinghouses, and health care providers;

- the federal false statements statute, which prohibits 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;

- the Federal Food, Drug and Cosmetic Act, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;

- the federal transparency requirements under the federal Physician Payment Sunshine Act, which requires manufacturers of drugs, devices, biologics, and medical supplies to report to the Department of Health and Human Services information related to payments and other transfers of value to physicians and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

- analogous state laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and certain state laws that 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; and

- similar healthcare laws and regulations in the European Union and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of certain protected information, such as the General Data Protection Regulation, or the GDPR, which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the European Union (including health data).

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the laws described above or any other government regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in government health care programs, such as Medicare and Medicaid, imprisonment, and the curtailment or restructuring of our operations, any of which could adversely affect our business, financial condition, results of operations, and prospects.

The provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order, or use of medicinal products is prohibited in the European Union. The provision of benefits or advantages to physicians is also governed by the national anti-bribery laws of European Union Member States, such as the UK Bribery Act 2010. Infringement of these laws could result in substantial fines and imprisonment.

Payments made to physicians in certain European Union Member States must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization, and/or the regulatory authorities of the individual European Union Member States. These requirements are provided in the national laws, industry codes, or professional codes of conduct applicable in the European Union Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines, or imprisonment.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices, including our relationships with physicians and other healthcare providers, may 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 governmental regulations that may apply to us, we may be subject to significant civil, criminal, and administrative penalties, damages, fines, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. Further, defending against any such actions can be costly, time-consuming and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. If any of the physicians or other providers or entities with whom we expect to do business are found to be not in compliance with applicable laws, they may be subject to criminal, civil, or administrative sanctions, including exclusions from government funded healthcare programs. Liabilities they incur pursuant to these laws could result in significant costs or an interruption in operations, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Current and future legislation may increase the difficulty and cost for us and any collaborators to obtain marketing approval and commercialize our product candidates and affect the prices we, or they, may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of our drug candidates, restrict or regulate post-approval activities, impact pricing and reimbursement and affect our ability, or the ability of any collaborators, to profitably sell or commercialize any product candidate for which we, or they, obtain marketing approval. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. We expect that current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we, or any collaborators, may receive for any approved products.

Among the provisions of the ACA of potential importance to our business, including, without limitation, our ability to commercialize our products and the prices we may obtain for any of our product candidates that are approved for sale, are the following:

- an annual, non-deductible fee on any entity that manufactures or imports specified branded prescription products and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- expansion of healthcare fraud and abuse laws, including the civil False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer point-of-sale discounts off negotiated prices to eligible beneficiaries during their coverage gap period, as a condition for a manufacturer's outpatient products to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability;
- expansion of eligibility criteria for Medicaid programs;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report certain financial arrangements with physicians and teaching hospitals, including reporting "transfers of value" made or distributed to prescribers and other healthcare providers and reporting investment interests held by physicians and their immediate family members;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

Other legislative changes have been proposed and adopted since the ACA was enacted. These changes include the Budget Control Act of 2011, which, among other things, led to aggregate reductions to Medicare payments to providers of up to 2% per fiscal year that started in April 2013 and, due to subsequent legislative amendments, will stay in effect through 2029 unless additional Congressional action is taken. The CARES Act, which was signed into law on March 27, 2020, and designed to provide financial support and resources to individuals and businesses affected by the COVID-19 pandemic, suspended the 2% Medicare sequester from May 1, 2020, through December 31, 2020, and extended the sequester by one year, through 2030, in order to offset the added expense of the 2020 cancellation. The American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These laws may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for any of our product candidates for which we may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used. Further, there have been several recent U.S. congressional inquiries and proposed state and federal legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of products under Medicare and reform government program reimbursement methodologies for products.

We expect that these healthcare reforms, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product and/or the level of reimbursement physicians receive for administering any approved product we might bring to market. Reductions in reimbursement levels may negatively impact the prices we receive or the frequency with which our products are prescribed or administered. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors.

Some of the provisions of the ACA have yet to be implemented, and there have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts by the current presidential administration to repeal or replace certain aspects of the ACA. Since January 2017, the president has signed two executive orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA have been signed into law. The TCJA includes a provision repealing, 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." Additionally, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the ACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and medical device tax and, effective January 1, 2021, also eliminates the health insurer tax. The Bipartisan Budget Act of 2018, among other things, amended the ACA, effective January 1, 2019, to close the coverage gap in most Medicare plans, commonly referred to as the "donut hole." In July 2018, the Centers for Medicare and Medicaid Services, or 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.

The current presidential administration has also taken executive actions to undermine or delay implementation of the ACA. Since January 2017, the president has signed two Executive Orders designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. One Executive Order directs 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 or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. The second Executive Order terminates the cost-sharing subsidies that reimburse insurers 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. In addition, CMS has recently proposed regulations that would give states greater flexibility 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. Further, on June 14, 2018, U.S. Court of Appeals for the Federal Circuit ruled that the federal government was not required to pay more than $12 billion in ACA risk corridor payments to third-party payors who argued such payments were owed to them, which the U.S. Supreme Court is reviewing during its current term. The effects of this gap in reimbursement on third-party payors, the viability of the ACA marketplace, providers, and potentially our business, are not yet known.

In addition, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseverable feature of the ACA, and therefore because the mandate was repealed as part of the TCJA, the remaining provisions of the ACA are invalid as well. The current presidential administration and CMS have both stated that the ruling will have no immediate effect, and on December 30, 2018 the same judge issued an order staying the judgment pending appeal. The current presidential administration recently represented to the Court of Appeals considering this judgment that it does not

oppose the lower court's ruling. On July 10, 2019, the Court of Appeals for the Fifth Circuit heard oral argument in this case. On December 18, 2019, that court affirmed the lower court's ruling that the individual mandate portion of the ACA is unconstitutional and it remanded the case to the district court for reconsideration of the severability question and additional analysis of the provisions of the ACA. On January 21, 2020, the U.S. Supreme Court declined to review this decision on an expedited basis. On March 3, 2020, the U.S. Supreme Court agreed to hear this case. 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 could have on our business. It is possible that repeal and replacement initiatives, if enacted into law, could ultimately result in fewer individuals having health insurance coverage or in individuals having insurance coverage with less generous benefits. While the timing and scope of any potential future legislation to repeal and replace ACA provisions is uncertain in many respects, it is also possible that some of the ACA provisions that generally are not favorable for the research-based pharmaceutical industry could also be repealed along with ACA coverage expansion provisions. Accordingly, such reforms, if enacted, could have an adverse effect on anticipated revenue from product candidates that we may successfully develop and for which we may obtain marketing approval and may affect our overall financial condition and ability to develop or commercialize product candidates.

Further, there have been several recent U.S. congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of products under Medicare and reform government program reimbursement methodologies for products. At the federal level, the current presidential administration's budget proposal contains further price control measures that could be enacted during the budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain products under Medicare Part B, to allow some states to negotiate product prices under Medicaid, and to eliminate cost sharing for generic products for low-income patients. While any proposed measures will require authorization through additional legislation to become effective, Congress and the current presidential administration have each indicated that it will continue to seek new legislative and/or administrative measures to control product costs.

Specifically, there have been several recent U.S. congressional inquiries and proposed federal and proposed and enacted state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of products under Medicare and reform government program reimbursement methodologies for products. At the federal level, Congress and the current administration have each indicated that it will continue to seek new legislative and/or administrative measures to control product costs. For example, on May 11, 2018, the current administration issued a plan to lower product prices. Under this blueprint for action, the current administration indicated that the Department of Health and Human Services will take steps to end the gaming of regulatory and patent processes by product makers to unfairly protect monopolies, advance biosimilars and generics to boost price competition, evaluate the inclusion of prices in makers' ads to enhance price competition, speed access to and lower the cost of new products by clarifying policies for sharing information between insurers and makers, avoid excessive pricing by relying more on value-based pricing by expanding outcome-based payments in Medicare and Medicaid, work to give Medicare Part D plan sponsors more negotiation power with makers, examine which Medicare Part B prices could be negotiated by Medicare Part D plans, improve the design of the Medicare Part B Competitive Acquisition Program, update Medicare's drug-pricing dashboard to increase transparency, prohibit Medicare Part D contracts that include "gag rules" that prevent pharmacists from informing patients when they could pay less out-of-pocket by not using insurance, and require that Medicare Part D plan members be provided with an annual statement of plan payments, out-of-pocket spending, and price increases.

In addition, on December 23, 2019, the current presidential administration published a proposed rulemaking that, if finalized, would allow states or certain other non-federal government entities to submit

importation program proposals to the FDA for review and approval. Applicants would be required to demonstrate that their importation plans pose no additional risk to public health and safety and will result in significant cost savings for consumers. At the same time, the FDA issued draft guidance that would allow manufacturers to import their own FDA-approved products that are authorized for sale in other countries (multi-market approved products).

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. Legally-mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition and prospects. 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 product and other health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing.

In the European Union, similar political, economic and regulatory developments may affect our ability to profitably commercialize our product candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the European Union or member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the European Union, including the establishment and operation of health services and the pricing and reimbursement of medicines, is almost exclusively a matter for national, rather than European Union, law and policy. National governments and health service providers have different priorities and approaches to the delivery of healthcare and the pricing and reimbursement of products in that context. In general, however, the healthcare budgetary constraints in most European Union member states have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. Coupled with ever-increasing European Union and national regulatory burdens on those wishing to develop and market products, this could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to commercialize our product candidates, if approved.

In markets outside of the United States and the European Union, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action in the United States, the European Union or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

Compliance with global privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data globally, and the failure to comply with such requirements could subject us to significant fines and penalties, which may have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, sharing, transfer and other processing of information worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. Globally, virtually every jurisdiction in which we operate has established its own data security and privacy frameworks with which we must comply. For example, the collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the European Union, including personal health data, is subject to the

GDPR, which took effect across all member states of the European Economic Area, or EEA, in May 2018. 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. The GDPR increases our obligations with respect to clinical trials conducted in the EEA by expanding the definition of personal data to include coded data and requiring changes to informed consent practices and more detailed notices for clinical trial subjects and investigators. In addition, the GDPR also imposes strict rules on the transfer of personal data to countries outside the European Union, including the United States and, as a result, increases the scrutiny that clinical trial sites located in the EEA should apply to transfers of personal data from such sites to countries that are considered to lack an adequate level of data protection, such as the United States. The GDPR also permits data protection authorities to require destruction of improperly gathered or used personal information and/or impose substantial fines for violations of the GDPR, which can be up to 4% of global revenues or 20 million Euros, whichever is greater, and it also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. In addition, the GDPR provides that European Union member states may make their own further laws and regulations limiting the processing of personal data, including genetic, biometric or health data.

Similar actions are either in place or under way in the United States. There are a broad variety of data protection laws that are applicable to our activities, and a wide range of enforcement agencies at both the state and federal levels that can review companies for privacy and data security concerns based on general consumer protection laws. The Federal Trade Commission and state Attorneys General all are aggressive in reviewing privacy and data security protections for consumers. New laws also are being considered at both the state and federal levels. For example, the California Consumer Privacy Act, which went into effect on January 1, 2020, is creating similar risks and obligations as those created by the GDPR, though the Act does exempt certain information collected as part of a clinical trial subject to the Federal Policy for the Protection of Human Subjects (the Common Rule). Many other states are considering similar legislation. A broad range of legislative measures also have been introduced at the federal level. Accordingly, failure to comply with federal and state laws (both those currently in effect and future legislation) regarding privacy and security of personal information could expose us to fines and penalties under such laws. There also is the threat of consumer class actions related to these laws and the overall protection of personal data. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm our reputation and our business.

Given the breadth and depth of changes in data protection obligations, preparing for and complying with these requirements is rigorous and time intensive and requires significant resources and a review of our technologies, systems and practices, as well as those of any third-party collaborators, service providers, contractors or consultants that process or transfer personal data collected in the European Union. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as healthcare data or other personal information from our clinical trials, could require us to change our business practices and put in place additional compliance mechanisms, may interrupt or delay our development, regulatory and commercialization activities and increase our cost of doing business, and could lead to government enforcement actions, private litigation and significant fines and penalties against us and could have a material adverse effect on our business, financial condition or results of operations.

We cannot assure you that our third-party service providers with access to our or our customers', suppliers', trial patients' and employees' personally identifiable and other sensitive or confidential information in relation to which we are responsible will not breach contractual obligations imposed by us, or that they will not experience data security breaches or attempts thereof, which could have a corresponding effect on our business, including putting us in breach of our obligations under privacy laws and regulations and/or which could in turn

adversely affect our business, results of operations and financial condition. We cannot assure you that our contractual measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information.

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

We are subject to numerous laws and regulations in each jurisdiction outside the United States in which we operate. The creation, implementation and maintenance of international business practices compliance programs is costly and such programs are difficult to enforce, particularly where reliance on third parties is required.

The Foreign Corrupt Practices Act, or the 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. The anti-bribery provisions of the FCPA are enforced primarily by the Department of Justice. The SEC is involved with enforcement of the books and records provisions of the FCPA.

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. Our expansion outside of the United States has required, and will continue to 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 penalties, including suspension or debarment from government contracting. Violation of the FCPA can result in significant civil and criminal penalties. Indictment alone under the FCPA can lead to suspension of the right to do business with the U.S. government until the pending claims are resolved. Conviction of a violation of the FCPA can result in long-term disqualification as a government contractor. The termination of a government contract or relationship as a result of our failure to satisfy any of our obligations under laws governing international business practices would have a negative impact on our operations and harm our reputation and ability to procure government contracts. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

Governments outside of the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that

compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

If we or any third-party manufacturer we engage now or in the future fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs or liabilities that could have a material adverse effect on our business.

We and third-party manufacturers we engage now are, and any third-party manufacturer we may engage in the future will 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. Our operations involve the use of hazardous and flammable materials, including chemicals and biological 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 general liability insurance as well as 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.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or commercialization efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Further, with respect to the operations of our current and any future third-party contract manufacturers, it is possible that if they fail to operate in compliance with applicable environmental, health and safety laws and regulations or properly dispose of wastes associated with our products, we could be held liable for any resulting damages, suffer reputational harm or experience a disruption in the manufacture and supply of our product candidates or products. In addition, our supply chain may be adversely impacted if any of our third-party contract manufacturers become subject to injunctions or other sanctions as a result of their non-compliance with environmental, health and safety laws and regulations.

Inadequate funding for the FDA, the SEC and other government agencies 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. 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 products 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, in our operations as a public company, 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.

Risks Related to Employee Matters and Managing Growth

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

We are highly dependent on the research and development, clinical, financial, operational and other business expertise of our executive officers, as well as the other principal members of our management, scientific and clinical teams. Although we have entered into employment agreements with 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. Recruiting and retaining qualified scientific, clinical, manufacturing, accounting, legal 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 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 marketing 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. 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. Our success as a public company also depends on implementing and maintaining internal controls and the accuracy and timeliness of our financial reporting. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

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.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, clinical, regulatory affairs, manufacturing and quality control and, if any of our product candidates receives marketing 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. Future growth will impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, including the clinical and regulatory review process for INZ-701 and any other product candidate we develop, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to advance development of and, if approved, commercialize INZ-701 and any other product candidate we develop will depend, in part, on our ability to effectively manage any future growth. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. If we do not effectively manage the expansion of our operations, we could experience weaknesses in our infrastructure, operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. The expansion of our operations also could 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.

Many of the pharmaceutical and biotechnology companies that we compete against for qualified personnel and consultants have greater financial and other resources, different risk profiles and a longer history in the industry than we do. If we are unable to continue to attract and retain high-quality personnel and consultants, the rate and success at which we can develop product candidates and operate our business will be limited.

Our internal computer systems, or those of our collaborators, vendors, suppliers, contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs.

Our internal computer systems and those of any collaborators, vendors, suppliers, contractors or consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such systems are also vulnerable to service interruptions or to security breaches from inadvertent or intentional actions by our employees, third-party vendors and/or business partners, or from cyber-attacks by malicious third parties. Cyber-attacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. Cyber-attacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, unauthorized access to or deletion of files, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information. Cyber-attacks also could include phishing attempts or e-mail fraud to cause payments or information to be transmitted to an unintended recipient.

If we experience any material system failure, accident, cyber-attack or security that causes interruptions in our operations, it could result in a material disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, our competitive position could be harmed and the further development and commercialization of our product candidates could be delayed.

Our employees, independent contractors, including principal investigators, consultants and vendors and any third parties we may engage in connection with research, development, regulatory, manufacturing, quality assurance and other pharmaceutical functions and commercialization may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading, which could cause significant liability for us and harm our reputation.

We are exposed to the risk of fraud or other misconduct by our employees, independent contractors, including principal investigators, consultants and vendors and any other third parties we engage. Misconduct by these partners could include intentional, reckless or negligent conduct or unauthorized activities that include failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities,

provide complete and accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards, comply with federal and state data privacy, security, fraud and other healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report complete financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. This could include violations of HIPAA, other U.S. federal and state law, and requirements of non-U.S. jurisdictions, including the European Union Data Protection Directive. We are also exposed to risks in connection with any insider trading violations by employees or others affiliated with us. It is not always possible to identify and deter employee misconduct, 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 be in compliance with such laws, standards, regulations, guidance or codes of conduct. 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 and results of operations, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid, other U.S. federal healthcare programs or healthcare programs in other jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations.

Risks Related to our Common Stock

After this offering, our executive officers, directors and principal stockholders, if they choose to act together, will continue to have the ability to control or significantly influence all matters submitted to stockholders for approval.

Upon the closing of this offering, our executive officers and directors and our stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, beneficially own shares representing approximately % of our capital stock. As a result, if these stockholders were to choose to act together, they would be able to control all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would control the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets.

This concentration of ownership control may:

- delay, defer or prevent a change in control;
- entrench our management and board of directors; or
- delay or prevent a merger, consolidation, takeover or other business combination involving us that other stockholders may desire.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current directors and members of management.

Provisions in our certificate of incorporation and our bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these

provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

- establish a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from our board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal specified provisions of our certificate of incorporation or bylaws that will become effective upon the closing of this offering.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, or the DGCL, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.

The initial public offering price of our common stock will be substantially higher than the pro forma as adjusted net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our pro forma as adjusted net tangible book value per share after this offering. To the extent outstanding options are exercised, you will incur further dilution. Based on an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, you will experience immediate dilution of $ per share, representing the difference between our pro forma as adjusted net tangible book value per share, after giving effect to this offering, and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately % of the aggregate price paid by all purchasers of our stock and will own approximately % of our common stock outstanding after this offering.

An active trading market for our common stock may not develop.

Prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters. Although we intend

to apply to have our common stock approved for listing on the Nasdaq Global Market, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop, it may be difficult for you to sell shares you purchase in this offering without depressing the market price for the shares or at all.

If securities analysts do not publish or cease publishing research or reports or publish misleading, inaccurate or unfavorable research about our business or if they publish negative evaluations of our stock, the price and trading volume 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 do not currently have, and 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 or publish inaccurate or unfavorable research about our business, or provides more favorable relative recommendations about our competitors, 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 and trading volume to decline.

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 smaller 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:

- results of or developments in preclinical studies and clinical trials of our product candidates or those of our competitors or potential collaborators;
- our success in commercializing our product candidates, if and when approved;
- the success of competitive products or technologies;
- regulatory actions with respect to our product candidates;
- regulatory or legal developments in the United States and other countries;
- changes in physician, hospital or healthcare provider practices;
- developments or disputes concerning patent applications, issued patents or other intellectual property or proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license products, product candidates or technologies, the costs of commercializing any such products and the costs of development of any such product candidates or technologies;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;

- variations in our financial results or the financial results of companies that are perceived to be similar to us;
- announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- sales of common stock by us, our executive officers, directors or principal stockholders, or others;
- 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.

In the past, following periods of volatility in the market price of a company’s securities, securities class-action litigation has often been instituted against that company. Any lawsuit to which we are a party, with or without merit, may result in an unfavorable judgment. We also may decide to settle lawsuits on unfavorable terms. Any such negative outcome could result in payments of substantial damages or fines, damage to our reputation or adverse changes to our offerings or business practices. Such litigation may also cause us to incur other substantial costs to defend such claims and divert management’s attention and resources. Furthermore, negative public announcements of the results of hearings, motions or other interim proceedings or developments could have a negative effect on the market price of our common stock.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

A significant portion of our total outstanding shares are eligible to be sold into the market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have shares of common stock outstanding based on the number of shares outstanding as of , 2020. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates or existing stockholders. The remaining shares are currently restricted as a result of securities laws or lock-up agreements (which may be waived, with or without notice, by BofA Securities, Inc., Cowen and Company, LLC and Piper Sandler & Co.) but will become eligible to be sold at various times beginning 180 days after this offering, unless held by one of our affiliates, in which case the resale of those securities will be subject to volume limitations under Rule 144 of the Securities Act of 1933, as amended, or Rule 144. Moreover, beginning 180 days after the completion of this offering, holders of an aggregate of shares of our common stock will have rights, along with holders of an additional shares of our common stock issuable upon exercise of outstanding options, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves

or other stockholders. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the "Underwriting" section of this prospectus.

We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," or EGC, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We may remain an EGC until the last day of the fiscal year in which the fifth anniversary of the closing of this offering occurs, although if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if we have annual gross revenues of $1.07 billion or more in any fiscal year, we would cease to be an EGC as of December 31 of the applicable year. We also would cease to be an EGC if we issue more than $1 billion of non-convertible debt over a three-year period. For so long as we remain an EGC, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not EGCs. These exemptions include:

- being permitted to provide only two years of audited financial statements in this prospectus, 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;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- 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;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of reduced reporting obligations in this prospectus. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an EGC.

We cannot predict whether investors will find our common stock less attractive if we rely on certain or all of 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 permits an EGC to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have elected to use the extended transition period for complying with new or revised accounting standards and will do so until such time that we either (1) irrevocably elect to "opt out" of such extended transition period or (2) no longer qualify as an EGC. As a result of this election, our consolidated financial statements may not be comparable to companies that comply with public company Financial Accounting Standards Board standards' effective dates.

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 and corporate governance practices.

As a public company, and particularly after we are no longer an EGC, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Market and other applicable securities rules and regulations impose 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, particularly as we hire additional financial and accounting employees to meet public company internal control and financial reporting requirements, 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, which in turn could make it more difficult for us to attract and retain qualified members of our board of directors.

We are evaluating these rules and regulations, and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting. However, while we remain an EGC, 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, including through hiring additional financial and accounting personnel, 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 we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses in our internal control over financial reporting, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

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. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Our certificate of incorporation that will become effective upon the closing of this offering designates the state courts in the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could discourage lawsuits against the company and our directors, officers and employees.

Our certificate of incorporation that will become effective upon the closing of this offering provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of

Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) will be the sole and exclusive forum 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, employees or stockholders to our company or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the DGCL or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (4) any action asserting a claim arising pursuant to any provision of our certificate of incorporation or bylaws (in each case, as they may be amended from time to time) or governed by the internal affairs doctrine.

We believe this provision benefits us by providing increased consistency in the application of Delaware law by chancellors particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. However, this exclusive forum provision may limit the ability of our stockholders to bring a claim in a judicial forum that such stockholders find favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees. The enforceability of a similar choice of forum provision in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in such action. If a court were to find the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition and operating results.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” “would,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus include, among other things, statements about:

- the timing of our planned IND and CTA submissions for INZ-701;
- the timing and conduct of our planned Phase 1/2 clinical trials of INZ-701 for ENPP1 and ABCC6 deficiencies, including statements regarding the timing of initiation and completion of the clinical trials and the period during which the results of the clinical trials will become available;
- the timing and conduct of our planned later stage clinical trials of INZ-701 for patients with ENPP1 and ABCC6 deficiencies;
- our plans to conduct research and preclinical testing of INZ-701 for additional indications;
- our plans to conduct research and preclinical testing of other product candidates;
- the timing of, and our ability to obtain and maintain, marketing approvals of INZ-701, and the ability of INZ-701 and our other product candidates to meet existing or future regulatory standards;
- our expectations regarding our ability to fund our operating expenses and capital expenditure requirements with our cash, cash equivalents and short-term investments and net proceeds of this offering;
- the potential advantages of our product candidates;
- the rate and degree of market acceptance and clinical utility of our product candidates;
- our estimates regarding the potential market opportunity for our product candidates;
- our commercialization and manufacturing capabilities and strategy;
- our intellectual property position;
- the impact of COVID-19 on our business and operations;
- our ability to identify additional products, product candidates or technologies with significant commercial potential that are consistent with our commercial objectives;
- our expectations related to the use of net proceeds from this offering;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;

- the impact of government laws and regulations;
- our competitive position; and
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the "Risk Factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, collaborations, joint ventures or investments we may make or enter into.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus, and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

This prospectus includes statistical and other industry and market data that we obtained from industry publications, research, surveys and studies conducted by third parties as well as our own estimates of potential market opportunities based on our analysis of these data, research, surveys and studies. All of the market data used in this prospectus involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such data. 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. Our estimates of the potential market opportunities for our product candidates include a number of key assumptions based on our industry knowledge, industry publications and third-party research, surveys and studies, which may be based on a small sample size and fail to accurately reflect market opportunities. While we believe that our internal assumptions are reasonable, no independent source has verified such assumptions.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of shares of our common stock in this offering will be approximately $ million, assuming an 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. If the underwriters exercise their option to purchase additional shares of our common stock in full, we estimate that the net proceeds from this offering will be approximately $ million.

A $1.00 increase (decrease) in the 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, would increase (decrease) the net proceeds to us from this offering 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. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by approximately $ 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.

As of December 31, 2019, we had cash, cash equivalents and short-term investments of approximately $47.1 million. We currently estimate that we will use the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, as follows:

- approximately $ million for the completion of our IND submission and conduct of our Phase 1/2 clinical trial of INZ-701 for ENPP1 deficiency;
- approximately $ million for the completion of our CTA submission and conduct of our Phase 1/2 clinical trial of INZ-701 for ABCC6 deficiency; and
- the remainder for preclinical studies for research stage programs, working capital and other general corporate purposes.

This expected use of net proceeds from this offering and our existing cash, cash equivalents and short-term investments represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from clinical trials, the timing of regulatory submissions and the outcome of regulatory review, as well as any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Based on our planned use of the net proceeds from this offering and our existing cash, cash equivalents and short-term investments, we estimate that such funds will be sufficient to enable us to , and to fund our operating expenses and capital expenditure requirements through . We have based these estimates on assumptions that may prove to be wrong and we could use our capital resources sooner than we currently expect.

We may also use a portion of the net proceeds from this offering for the acquisition or in-license of other products, product candidates, businesses or technologies, although we have no current agreements or commitments for any material acquisitions or licenses of any products, businesses or technologies. Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business. We do not anticipate paying any cash dividends in the foreseeable future. Any future determination to declare and pay dividends will be made at the discretion of our board of directors and will depend on then-existing conditions, including our results of operations, financial condition, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and short-term investments and our capitalization as of December 31, 2019:

- on an actual basis;
- on a pro forma basis to give effect to (1) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing of this offering and (2) the restatement of our certificate of incorporation upon the closing of this offering; and
- on a pro forma as adjusted basis to give 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, 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.

The pro forma and 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. You should read the information in this table 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.

	As of December 31, 2019		
	Actual	Pro Forma	Pro Forma As Adjusted
	(in thousands, except share and per share data)		
Cash, cash equivalents and short-term investments	$ 47,132	$ 47,132	
Series A Convertible Preferred Stock, $0.0001 par value—48,850,000 shares authorized; 48,850,000 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	44,657	—	
Series A-2 Convertible Preferred Stock, $0.0001 par value—47,132,862 shares authorized; 23,566,431 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	33,270	—	
Stockholders' equity:			
Preferred stock, $0.0001 par value—no shares authorized, issued or outstanding, actual; shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	
Common stock, $0.0001 par value—129,000,000 shares authorized; 9,002,260 shares issued and outstanding, actual; shares authorized, 81,418,691 shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	1	8	
Additional paid in-capital	1,427	79,347	
Accumulated other comprehensive income	5	5	
Accumulated deficit	(34,652)	(34,652)	
Total stockholders' equity	(33,219)	44,708	
Total capitalization	$ 44,708	$ 44,708	

A $1.00 increase (decrease) in the 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, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, additional paid-in capital, total stockholders' equity and total capitalization 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. An increase (decrease) of 1,000,000 shares 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, cash equivalents and short-term investments, common stock, additional paid-in capital, total stockholders' equity and total capitalization 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.

The table above excludes:

- 12,221,734 shares of our common stock issuable upon exercise of stock options outstanding as of December 31, 2019, at a weighted average exercise price of $0.22 per share;
- 7,663,006 additional shares of our common stock reserved for future issuance under our existing Amended and Restated 2017 Equity Incentive Plan, as amended, as of December 31, 2019;
- additional shares of our common stock that will be available for future issuance as of the closing of this offering under our new 2020 Stock Incentive Plan; and
- additional shares of our common stock that will be available for future issuance as of the closing of this offering under our new 2020 Employee Stock Purchase Plan.

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 immediately after this offering.

Our historical net tangible book value (deficit) as of December 31, 2019 was $(33.2) million, or $(3.69) per share of common stock. Our historical net tangible book value (deficit) is the amount of our total tangible assets less our total liabilities and the carrying value of our preferred stock, which is not included within stockholders' (deficit) equity. Historical net tangible book value (deficit) per share represents historical net tangible book value (deficit) divided by the 9,002,260 shares of our common stock outstanding as of December 31, 2019.

Our pro forma net tangible book value as of December 31, 2019 was $44.7 million, or $0.55 per share of common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing 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 December 31, 2019, after giving effect to the pro forma adjustments described above.

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, which is 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 December 31, 2019 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 shares of our 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 (deficit) per share as of December 31, 2019	$ (3.69)
Increase per share attributable to the pro forma adjustments described above	4.24
Pro forma net tangible book value per share as of December 31, 2019	0.55
Increase in pro forma as adjusted net tangible book value per share attributable to new investors purchasing shares of our common stock in this offering	
Pro forma as adjusted net tangible book value per share immediately after this offering	
Dilution per share to new investors purchasing shares of our common stock in this offering	

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. A $1.00 increase (decrease) in the 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, would increase (decrease) our pro forma as adjusted net tangible book value per share after this offering by $ and dilution per share to new investors purchasing shares of our common stock 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. An increase of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book

value per share after this offering by $ and decrease the dilution per share to new investors purchasing shares of our common stock in this offering by $, 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. A decrease of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease our pro forma as adjusted net tangible book value per share after this offering by $ and increase the dilution per share to new investors purchasing shares of our common stock 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 $, 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 shares of our common stock in this offering, assuming an initial public offering price of $ per share, which is 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.

The following table summarizes, as of December 31, 2019, on the pro forma as adjusted basis described above, the total number of shares of our common stock purchased from us on an as converted to common stock basis, the total consideration paid or to be paid and the average price per share paid or to be paid by existing stockholders and by new investors 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, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table shows, new investors purchasing shares of our common stock in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percentage	
Existing stockholders					$
Investors purchasing shares of our common stock in this offering		%		%	$
Total		100%		100%	

A $1.00 increase (decrease) in the 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, 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. An increase (decrease) of 1,000,000 shares 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 exercise their option to purchase additional shares 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 our common stock held by new investors purchasing shares of our common stock in this offering would be increased to % of the total number of shares of our common stock outstanding after this offering.

The tables and discussion above are based on the number of shares of our common stock outstanding as of December 31, 2019 and after giving effect to the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing of this offering. The table above excludes:

- 12,221,734 shares of our common stock issuable upon exercise of stock options outstanding as of December 31, 2019, at a weighted average exercise price of $0.22 per share;
- 7,663,006 additional shares of our common stock reserved for future issuance under our existing Amended and Restated 2017 Equity Incentive Plan, as amended, as of December 31, 2019;
- additional shares of our common stock that will be available for future issuance as of the closing of this offering under our new 2020 Stock Incentive Plan; and
- additional shares of our common stock that will be available for future issuance as of the closing of this offering under our new 2020 Employee Stock Purchase Plan.

To the extent that outstanding stock options are exercised, new stock options are issued, or we issue additional shares of our common stock in the future, there will be further dilution to investors purchasing shares of our common stock in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

You should read the following selected consolidated 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 consolidated statements of operations data for the years ended December 31, 2019 and 2018 and the consolidated balance sheet data as of December 31, 2019 and 2018 from our consolidated financial statements appearing at the end of this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future.

	Years Ended December 31,	
	2019	2018
	(in thousands, except share and per share data)	
Consolidated Statements of Operations Data:		
Operating expenses:		
Research and development	$ 16,220	$ 8,099
General and administrative	4,586	3,494
Total operating expenses	20,806	11,593
Loss from operations	(20,806)	(11,593)
Other income (expense):		
Interest income	1,106	284
Other expense, net	(24)	(29)
Change in fair value of preferred stock tranche liability	—	4,374
Other income (expense), net	1,082	4,629
Net loss	$ (19,724)	$ (6,964)
Net loss per share attributable to common stockholders—basic and diluted(1)	$ (2.23)	$ (0.89)
Weighted-average common shares outstanding—basic and diluted(1)	8,841,657	7,851,950
Pro forma net loss per share attributable to common stockholders—basic and diluted (unaudited)(1)	$ (0.25)	
Pro forma weighted-average common shares outstanding—basic and diluted (unaudited)(1)	77,732,846	

(1) See Note 10 to our consolidated financial statements appearing at the end of this prospectus for a description of the method used to calculate basic and diluted net loss per share and unaudited pro forma basic and diluted net loss per share as well as the weighted-average number of common shares used in the calculation of the per share amounts.

	As of December 31,	
	2019	2018
	(in thousands)	
Consolidated Balance Sheet Data:		
Cash, cash equivalents and short-term investments	$ 47,132	$ 43,163
Working capital(1)	44,224	40,878
Total assets	47,944	43,543
Convertible preferred stock	77,927	55,029
Accumulated deficit	(34,652)	(14,928)
Total stockholders' deficit	(33,219)	(13,875)

(1) We define working capital as current assets less current liabilities. See our consolidated financial statements for further details regarding our current assets and 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 appearing at the end of this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. 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 these forward-looking statements. For convenience of presentation some of the numbers have been rounded in the text below.

Overview

We are a rare disease biopharmaceutical company developing novel therapeutics for the treatment of diseases of abnormal mineralization impacting the vasculature, soft tissue and skeleton. Through our in-depth understanding of the biological pathways involved in mineralization, we are pursuing the development of potentially first-in-class therapeutics to address the underlying causes of these debilitating diseases. It is well established that two genes, ENPP1 and ABCC6, play key roles in a critical mineralization pathway and that defects in these genes lead to abnormal mineralization. We are initially focused on developing a novel therapy to treat the rare genetic diseases of ENPP1 and ABCC6 deficiencies.

Our lead product candidate, INZ-701, is a soluble, recombinant, or genetically engineered, fusion protein that is designed to correct a defect in the mineralization pathway caused by ENPP1 and ABCC6 deficiencies. This pathway is central to the regulation of calcium deposition throughout the body and is further associated with neointimal proliferation, or the overgrowth of smooth muscle cells inside blood vessels. We have generated robust preclinical proof of concept data demonstrating that in animal models INZ-701 prevented pathological calcification, led to improvements in overall health and survival and prevented neointimal proliferation. We plan to file both an Investigational New Drug Application, or IND, with the U.S. Food and Drug Administration, or FDA, and a Clinical Trial Authorization, or CTA, with regulatory authorities in Europe for INZ-701 in . We plan to advance INZ-701 into two separate Phase 1/2 clinical trials, one in patients with ENPP1 deficiency and another in patients with ABCC6 deficiency. The FDA and the European Medicines Agency, or EMA, have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency. Beyond our development focus on INZ-701, we believe that our therapeutic approach has the potential to benefit patients suffering from additional diseases of abnormal mineralization, including those without a clear genetic basis.

We were formed as a limited liability company in September 2015 and converted into a Delaware corporation in January 2017. We have not yet commercialized any products or generated any revenue from product sales. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, securing intellectual property rights, conducting research and development activities, establishing arrangements for the manufacture of INZ-701 and longer term planning for potential commercialization. All of our product candidates are still in preclinical development. To date, we have funded our operations primarily with proceeds from the sales of convertible preferred stock. Through December 31, 2019, we had received net proceeds of $77.9 million from the sales of our convertible preferred stock. Since inception, we have incurred significant operating losses. Our ability to generate revenue from product sales sufficient to achieve profitability will depend heavily on the successful development and eventual commercialization of INZ-701 or one or more of our future product candidates and programs. Our net losses were $19.7 million for the year ended December 31, 2019 and $7.0 million for the year ended December 31, 2018. As of December 31, 2019, we had an accumulated deficit of $34.7 million.

Our total operating expenses were $20.8 million for the year ended December 31, 2019 and $11.6 million for the year ended December 31, 2018. We expect to continue to incur significant expenses for the

foreseeable future. We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we advance our preclinical activities and clinical trials. In addition, if we obtain marketing approval for INZ-701 or any other product candidate we develop, we expect to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company.

As a result, we will need to obtain substantial additional funding to support our continuing operations. Until such time, if ever, as we can generate significant revenues from product sales we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution and licensing arrangements, including the anticipated net proceeds from this offering. We do not have any committed external source of funds.. If we are unable to raise capital or obtain adequate funds when needed or on acceptable terms, we may be required to delay, limit, reduce or terminate our research and 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. In addition, attempting to secure additional financing may divert the time and attention of our management from day-to-day activities and distract from our research and development efforts.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our pipeline of product candidates or even continue our operations.

As of December 31, 2019, we had cash, cash equivalents and short-term investments of approximately $47.1 million. We have experienced negative cash flows from operations during fiscal 2019 and 2018. We expect to incur substantial operating losses and negative cash flows from operations for the foreseeable future. As a result, there is a significant degree of uncertainty as to how long our existing cash, cash equivalents and short-term investments will be sufficient to fund our operations. These conditions raise substantial doubt about our ability to continue as a going concern for a period of at least one year from the date our consolidated financial statements for the year ended December 31, 2019 are issued. See Note 1 to our consolidated financial statements appearing at the end of this prospectus for additional information on our assessment of our ability to continue as a going concern.

We believe that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, 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 our operating plan may change as a result of many factors currently unknown to us. See “—Liquidity and Capital Resources.”

To finance our operations beyond that point, we will need to raise additional capital, which cannot be assured.

We anticipate that our expenses will increase substantially if and as we:

- prepare for, initiate and conduct a planned Phase 1/2 clinical trial of INZ-701 for ENPP1 deficiency;
- prepare for, initiate and conduct a planned Phase 1/2 clinical trial of INZ-701 for ABCC6 deficiency;
- prepare for, initiate and conduct later stage clinical trials of INZ-701 for patients with ENPP1 and ABCC6 deficiencies;

- conduct research and preclinical testing of INZ-701 for additional indications;
- conduct research and preclinical testing of other product candidates;
- advance INZ-701 for additional indications or any other product candidate into clinical development;
- seek marketing approval for INZ-701 or any other product candidate if it successfully completes clinical trials;
- scale up our manufacturing processes and capabilities to support clinical trials of INZ-701 or any other product candidates we develop and for commercialization of any product candidate for which we may obtain marketing approval;
- establish a sales, marketing and distribution infrastructure to commercialize any product candidate for which we may obtain marketing approval;
- in-license or acquire additional technologies or product candidates;
- make any payments to Yale University, or Yale, under our license agreement or sponsored research agreement with Yale;
- maintain, expand, enforce and protect our intellectual property portfolio;
- hire additional clinical, regulatory, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our research, product development and planned future commercialization efforts and our operations as a public company.

License and Sponsored Research Agreements

In January 2017, we entered into a license agreement with Yale, which was amended in May 2020, under which we licensed certain intellectual property related to ectonucleotide pyrophosphatase/phosphodiesterase enzymes, or ENPPs, that is the basis for our INZ-701 development program. Pursuant to the license agreement, as partial upfront consideration, we made a payment of approximately $60,000 to Yale, which amount reflected unreimbursed patent expenses incurred by Yale prior to the date of the license agreement. We are responsible for paying Yale an annual license maintenance fee in varying amounts throughout the term ranging from the low tens of thousands of dollars to the high tens of thousands of dollars. As of December 31, 2019, we have incurred a total of $30,000 in license maintenance fees to Yale. We are required to pay Yale $3.0 million, based on the achievement of a specified net product sales milestone or specified development and commercialization milestones, for each therapeutic and prophylactic licensed product developed. We are required to pay Yale an amount in the several hundreds of thousands of dollars, based on the achievement of a specified net product sales milestone or specified development and commercialization milestones, for each diagnostic licensed product developed. While the agreement remains in effect, we are required to pay Yale low single-digit percentage royalties on aggregate worldwide net sales of certain licensed products. Yale is guaranteed a minimum royalty payment amount (ranging in dollar amounts from the mid six figures to low seven figures) for each year after the first sale of a therapeutic or prophylactic licensed product that results in net sales. Yale is guaranteed a minimum royalty payment amount (ranging from the low tens of thousands of dollars to the mid tens of thousands of dollars) for each year after the first sale of a diagnostic licensed product that results in net sales. We must also pay Yale a double-digit percentage of certain types of income we receive from sublicensees. We are also responsible for costs relating to the prosecution and maintenance of the licensed patents. Finally,

subject to certain conditions, all payments due by us to Yale will be tripled following any patent challenge or challenge to a claim by Yale that a product is a licensed product under the agreement made by us against Yale if Yale prevails in such challenge.

In January 2017, we also entered into a corporate sponsored research agreement with Yale, which was amended in February 2019, under which we agreed to provide research support funding in the aggregate amount of $2.4 million over the five year period from contract inception through the fourth quarter of 2021. We recorded research and development expenses associated with this arrangement of $0.5 million and $0.4 million in the years ended December 31, 2019 and 2018, respectively.

We recorded research and development expense associated with other arrangements with Yale of $0.3 million and $0.4 million in the years ended December 31, 2019 and 2018, respectively.

Financial Operations Overview

Revenue

To date, 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 development efforts for our product candidates are successful and result in regulatory approval or we enter into collaboration or similar agreements with third parties, we may generate revenue from those product candidates.

Research and Development Expenses

Research and development expenses primarily consist of costs incurred in connection with the discovery and development of our lead product candidate, INZ-701.

We expense research and development costs as incurred. These expenses include:

- fees and expenses incurred in connection with the in-license of technology and intellectual property rights;
- expenses incurred under agreements with third parties, including contract research organizations, or CROs, and other third parties that conduct research, preclinical and clinical activities on our behalf as well as third parties that manufacture our product candidates for use in our preclinical studies and planned clinical trials;
- manufacturing scale-up expenses and the cost of acquiring and manufacturing preclinical trial materials, including manufacturing validation batches;
- employee-related expenses, including salaries, related benefits, travel and stock-based compensation expense for employees engaged in research and development functions;
- the costs of laboratory supplies and acquiring, developing preclinical studies and clinical trial materials;
- costs related to compliance with regulatory requirements; and
- facilities costs, which include depreciation costs of equipment and allocated expenses for rent, utilities and other operating costs.

We recognize external development costs based on an evaluation of the progress to completion of specific tasks using information provided to us by our service providers.

Research and development activities are central to our business model. We are still in the early stages of development of INZ-701, and expect to file applications with regulatory authorities in the United States and Europe in to allow us to initiate clinical development. Product candidates in later stages of clinical development generally have higher development costs than those in preclinical development or in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. Since inception, we have incurred $28.9 million of research and development costs for INZ-701. We expect that our research and development costs will continue to increase substantially for the foreseeable future as we initiate additional clinical trials of INZ-701, scale our manufacturing processes and advance development of INZ-701 for additional indications and potentially additional product candidates.

The successful development of INZ-701 and other potential future product candidates is highly uncertain. Accordingly, at this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of any product candidate. We are also unable to predict when, if ever, we will generate revenue and material net cash inflows from the commercialization and sale of any of our product candidates for which we may obtain marketing approval. We may never succeed in achieving marketing approval for any of our product candidates. The success of INZ-701 and any other product candidate we develop will depend on a variety of factors, including:

- successfully completing preclinical studies and initiating clinical trials, including acceptance of our IND for INZ-701 by the FDA and similar applications by regulatory authorities in Europe to allow us to initiate clinical development of INZ-701;
- successfully enrolling patients in and completing clinical trials;
- scaling up manufacturing processes and capabilities to support clinical trials of INZ-701 and any other product candidates we develop;
- applying for and receiving marketing approvals from applicable regulatory authorities;
- obtaining and maintaining intellectual property protection and regulatory exclusivity for INZ-701 and any other product candidates we develop;
- making arrangements for commercial manufacturing capabilities;
- establishing sales, marketing and distribution capabilities and launching commercial sales of INZ-701 and any other product candidates we develop, if and when approved, whether alone or in collaboration with others;
- acceptance of INZ-701 and any other product candidates we develop, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining coverage, adequate pricing and adequate reimbursement from third-party payors, including government payors;
- maintaining, enforcing, defending and protecting our rights in our intellectual property portfolio;
- not infringing, misappropriating or otherwise violating others' intellectual property or proprietary rights; and
- maintaining a continued acceptable safety profile of our products following receipt of any marketing approvals.

A change in the outcome of any of these variables with respect to the development, manufacture or commercialization activities of any of our product candidates could mean a significant change in the costs, timing and viability associated with the development of that product candidate. For example, if we are required to conduct additional clinical trials or other testing beyond those that we anticipate will be required for the completion of clinical development of a product candidate, or if we experience significant delays in our clinical trials due to patient enrollment or other reasons, we would be required to expend significant additional financial resources and time on the completion of clinical development.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, related benefits, travel and stock-based compensation expense for personnel in executive, finance and administrative functions. General and administrative expenses also include professional fees for legal, consulting, accounting, tax and audit services, and information technology infrastructure costs. We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support our continued research activities and development of our product candidates. We also anticipate that we will incur increased costs associated with being a public company, including costs of accounting, audit, legal, regulatory, compliance and tax-related services related to maintaining compliance with requirements of Nasdaq and the Securities and Exchange Commission, or SEC; director and officer insurance costs; and investor and public relations costs. We anticipate the additional costs for these services will substantially increase our general and administrative expenses. Additionally, we may experience an increase in payroll and expense as a result of our preparation for potential commercial operations, especially as it relates to sales and marketing costs.

Interest Income

Interest income consists of income from bank deposits and short-term investments.

Other Expense

Other expense primarily consists of foreign exchange gains or losses.

Change in Fair Value of Preferred Stock Tranche Liability

As described in Note 8 of the accompanying consolidated financial statements, in 2017, we entered into a Series A Convertible Preferred Stock Purchase Agreement, which, as amended and restated, we refer to as the Series A Agreement, under which we agreed to issue up to 48,750,000 shares of Series A Convertible Preferred Stock in two tranches. Under the Series A Agreement, we initially issued 27,083,333 shares at a price of $1.00 per share for net cash proceeds of $26.7 million. The Series A Agreement provided for a second tranche closing based on the achievement of a defined milestone or upon waiver of the milestone, or the Tranche Right. In November 2018, we sold an additional 21,666,667 shares of Series A Convertible Preferred Stock at a price of $1.00 per share under the Tranche Right.

The Tranche Right was classified as a liability and initially recorded at fair value. The liability was subject to revaluation at each balance sheet date prior to the exercise or expiration of the Tranche Right. The change in the preferred stock tranche liability consists of the re-measurement gains or losses associated with changes in the fair value of the Tranche Right. Upon issuance of the additional shares of Series A Convertible Preferred Stock in November 2018, the Tranche Right was settled.

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 conformity with accounting principles

generally accepted in the United States of America. The preparation of these consolidated financial statements requires management to make estimates and judgments 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 expenses 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 at the end of this prospectus, we believe the following accounting policies are the most critical to the judgments and estimates used in the preparation of our consolidated financial statements.

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 purchase orders and open contracts, communicating with our 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 services when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed 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 our consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include the costs incurred for services performed by CROs and contract manufacturing organizations, or CMOs, among others, in connection with research and development activities for which we have not yet been invoiced.

We contract with CROs and CMOs to conduct clinical and manufacturing and other research and development services on our behalf. We base our expenses related to CROs and CMOs on our estimates of the services received and efforts expended pursuant to quotes and contracts with them. 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 CROs or CMOs will exceed the level of services provided and result in a prepayment of the research and development 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 our estimate, we adjust the accrual or amount of prepaid expense accordingly. Non-refundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

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 us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of employee and non-employee stock option grants and restricted stock awards recognized over the requisite service period of the

awards on a straight-line basis. 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. We have elected to recognize compensation expense for these awards on a straight-line basis.

We accounted for stock options to non-employees using the fair value approach through December 31, 2017. On January 1, 2018, we early adopted Financial Accounting Standards Board, or FASB, Accounting Standards Update, or ASU, No. 2018-07, *Compensation – Stock Compensation*, or ASU 2018-07, and as a result, the fair value of unvested non-employee awards as of December 31, 2017 is no longer remeasured each reporting period. All future expense related to these awards will be recorded based on the fair value measured as of December 31, 2017, the last period prior to the adoption of ASU 2018-07. We classify 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.

Fair Value of Stock-Based Awards

We estimate the fair value of our stock options using the Black-Scholes option-pricing model, which requires inputs of subjective assumptions, including: (1) the expected volatility of our common stock; (2) the expected term of the award; (3) the risk-free interest rate; (4) expected dividends; and (5) the fair value of common stock. 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 estimate the expected term of our stock options granted to employees using the simplified method, whereby the expected term equals the average of the vesting term and the original contractual term of the option. We utilize this method as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. For stock options granted to non-employees, we utilize the contractual term of the option as the basis for the expected term assumption. The risk-free interest rate is based on a U.S. 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 dividends and have no current plans to pay any dividends on our common stock.

The fair value of stock options granted to employees was estimated on the date of grant using the Black-Scholes option-pricing model, with the following range of assumptions for the years ended December 31, 2019 and 2018:

	Year Ended December 31,	
	2019	2018
Risk-free interest rate	1.63% to 2.51%	2.35% to 3.01%
Expected dividend yield	0%	0%
Expected term (in years)	6.78	6.08
Expected volatility	85.02% to 103.76%	100.11% to 103.48%

The fair value of stock options granted to non-employees was estimated on the date of grant and as the grants are remeasured over the vesting period using the Black-Scholes option-pricing model, with the following range of assumptions:

	Year Ended December 31,	
	2019	2018
Risk-free interest rate	1.84%	2.18%
Expected dividend yield	0%	0%
Expected term (in years)	10.00	10.00
Expected volatility	85.02%	101.87%

We determine the fair value of restricted stock awards based on the estimated fair value of our common stock on the date of grant, less any applicable purchase price.

In the first quarter of the year ending December 31, 2018, we made an accounting policy election to recognize forfeitures as they occur upon adoption of guidance per ASU No. 2016-09, *Compensation—Stock Compensation*, or ASU 2016-09. The adoption of ASU 2016-09 did not have a material impact on our consolidated financial statements. In reporting periods prior to the year ending December 31, 2018, we estimated forfeitures at the time of grant and revised the forfeitures rate in subsequent periods as necessary if actual forfeitures differed from estimates.

The following table presents the grant dates, number of underlying shares of common stock and the per share exercise prices of stock options granted between January 1, 2017 and December 31, 2019, along with the fair value per share utilized to calculate stock-based compensation expense:

Grant Date	Type of Award	Number of Common Shares	Per Share Exercise Price of Award(1)	Per Share Fair Value of Common Stock on Grant Date(2)	Per Share Estimated Fair Value of Award(3)
June 28, 2017	Option	3,507,480	$ 0.13	$ 0.13	$ 0.11
September 7, 2017	Option	1,162,500	$ 0.13	$ 0.13	$ 0.10
January 8, 2018	Option	654,620	$ 0.13	$ 0.16(4)	$ 0.16
April 15, 2018	Option	325,000	$ 0.13	$ 0.16(4)	$ 0.16
December 13, 2018	Option	497,500	$ 0.25	$ 0.25	$ 0.18
March 7, 2019	Option	61,250	$ 0.25	$ 0.25	$ 0.19
June 20, 2019	Option	5,035,050	$ 0.27	$ 0.27	$ 0.20
September 20, 2019	Option	565,000	$ 0.27	$ 0.27	$ 0.20
September 26, 2019	Option	1,200,000	$ 0.27	$ 0.27	$ 0.20
December 12, 2019	Option	680,000	$ 0.27	$ 0.27	$ 0.20

(1) The Per Share Exercise Price of Award represents the fair value of our common stock on the date of grant, as determined by our board of directors, after taking into account our most recently available contemporaneous valuations of our common stock as well as additional factors that may have changed since the date of such contemporaneous valuations through the date of grant.

(2) The Per Share Fair Value of Common Stock on Grant Date is based upon a third-party valuation analysis and represents what we believed was the fair value of our common stock on the respective grant dates. Valuations were performed as of April 30, 2017, December 31, 2017, November 30, 2018 and May 31, 2019.

(3) The Per Share Estimated Fair Value of Award reflects the fair value of options as estimated at the date of grant using the Black-Scholes option-pricing model.

(4) At the time of the option grants on January 8, 2018 and April 15, 2018, our board of directors determined that the fair value of our common stock of $0.13 per share calculated in the contemporaneous valuation as of April 30, 2017 reasonably reflected the per share fair value of our common stock as of the grant date.

However, as described below, the fair value of our common stock at the date of these grants was adjusted to $0.16 per share in connection with a retrospective fair value assessment for accounting purposes.

In preparing for the issuance of our consolidated financial statements for the year ended December 31, 2017, we performed a retrospective fair value assessment and concluded that the fair value of our common stock underlying stock options that we granted on January 8, 2018 and April 15, 2018, with an exercise price of $0.13 per share, was $0.16 per share for accounting purposes. That value of $0.16 per share, which we applied to determine the per share estimated fair value of the January 8, 2018 and April 15, 2018 awards for accounting purposes, was based upon our board of directors' determination of the fair value of our common stock as of December 31, 2017.

The following table summarizes the classification of our stock-based compensation expense recognized in our consolidated statements of operations and comprehensive loss (in thousands):

	Year Ended December 31,	
	2019	2018
Research and development	$ 150	$ 322
General and administrative	151	122
Total	$ 301	$ 444

As of December 31, 2019, we had $1.5 million of unrecognized compensation expense related to stock option awards, which is expected to be recognized over weighted-average remaining vesting periods of approximately 3.0 years. In future periods, we expect stock-based compensation expense to increase, due in part to our existing unrecognized stock-based compensation expense, potential increases in the value of our common stock and expected issuance of additional stock-based awards to continue to attract and retain our employees.

Determination of Fair Value of Common Stock

As a private company with no active public market for our common stock, our board of directors has historically determined the fair value of our common stock on each date of each option grant, with input from management, considering our most recent contemporaneous third party valuation 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. The additional factors considered when determining any changes in fair value of our common stock between the most recent contemporaneous valuation and the grant dates included the status of our stage of research and development, our operating and financial performance and current business conditions. The third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, or the Practice Aid. 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 us to estimate the fair value of our common stock in connection with our accounting for stock options, as the fair value of our common stock will be its trading price on The Nasdaq Stock Market.

We performed contemporaneous valuations, with the assistance of a third-party valuation specialist, as of April 30, 2017, December 31, 2017, November 30, 2018 and May 31, 2019, which resulted in valuations of our common stock of $0.13, $0.16, $0.25 and $0.27 per share, respectively. In conducting each valuation, we considered all objective and subjective factors that we believed to be relevant, including our best estimate of our business condition, prospects and operating performance at each valuation date. Within the valuations performed, a range of factors, assumptions and methodologies were used. The significant factors included:

- the lack of an active public market for our common stock and convertible preferred stock;

- the prices at which we sold shares of our convertible preferred stock in arm's length transactions and the superior rights, preferences and privileges of the convertible preferred stock relative to our common stock, including the liquidation preferences of our convertible preferred stock;
- our results of operations and financial condition, including cash on hand;
- the material risks related to our business;
- our stage of development and business strategy;
- the composition of, and changes to, our management team and board of directors;
- the market performance of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed initial public offerings, or IPOs, of companies in the life sciences and biotechnology sectors; and
- the likelihood of achieving a liquidity event such as an IPO given prevailing market conditions.

There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates are management's best estimates and include assumptions regarding our future operating performance, the time to completing an IPO or other liquidity event, the related company valuations associated with such events and the determinations of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per common share could have been different.

Common Stock Valuation Methodologies

Our contemporaneous common stock valuations were prepared in accordance with the guidelines in the Practice Aid, which prescribes several valuation approaches for determining the value of an enterprise, such as the cost, market and income approaches, and various methodologies for allocating the value of an enterprise to its capital structure and specifically the common stock.

Our common stock valuations through May 31, 2019 were prepared using the backsolve method to calculate the total equity value and the option-pricing method, or OPM, to allocate the total equity value. The backsolve method derives the implied equity value for one type of equity security from a contemporaneous transaction involving another type of security.

Option-Pricing Method (OPM). The OPM treats each class of common stock and convertible preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the convertible preferred stock liquidation preferences at the time of a liquidity event, such as a strategic sale, merger or IPO. The common stock is modeled as a call option on the underlying equity value at a predetermined exercise price. In the model, the exercise price is based on a comparison with the total equity value rather than, as in the case of a regular call option, a comparison with a per share stock price. Thus, common stock is considered to be a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the convertible preferred stock liquidation preference is paid.

The OPM uses the Black-Scholes option-pricing model to price the call options. This model defines the securities' fair values as functions of the current fair value of a company and uses assumptions, such as the anticipated timing of a potential liquidity event and the estimated volatility of the equity securities. The aggregate value of the common stock derived from the OPM is then divided by the number of shares of common stock outstanding to arrive at the per share value.

We used the OPM backsolve approach to estimate enterprise value under the OPM. The OPM backsolve approach uses the OPM to calculate the implied equity value based on recent sales of our securities. For the OPM, we based our assumed volatility factor on the historical trading volatility of our publicly traded peer companies. At each valuation date, we determined the appropriate volatility to be used, considering such factors as our expected time to a liquidity event and our stage of development.

To derive the fair value of our common stock using the OPM, we calculated the proceeds to the common stockholders based on the preferences and priorities of the convertible preferred and common stock. We then applied a discount for lack of marketability to the common stock to account for the lack of access to an active public market.

Probability-Weighted Expected Return Method (PWERM). The probability weighted expected return method, or PWERM, is a scenario-based methodology that estimates the fair value of common stock-based upon an analysis of future values for us, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock. A discount for lack of marketability is then applied to the common stock to account for the lack of access to an active public market.

Hybrid Method. The hybrid method is a PWERM where the equity value in one of the scenarios is calculated using an OPM. In the hybrid method used by us, we considered two types of future-event scenarios: an IPO and an unspecified liquidity event. The equity value for the IPO scenario was determined using the guideline public company method, or GPC, which includes comparisons to publicly traded companies in our industry that recently completed IPOs. The equity value for the unspecified liquidity event scenario was determined using a backsolve method. The relative probability of each type of future-event scenario was determined based on an analysis of market conditions at the time, including then-current IPO valuations of similarly situated companies, and our expectations as to the timing and likely prospects of the future-event scenarios. A discount for lack of marketability is then applied to the common stock to account for the lack of access to an active public market.

To derive the fair value of the common stock for each scenario using the hybrid method, we calculated the proceeds to the common stockholders based on the preferences and priorities of the convertible preferred and common stock. We then applied a discount for lack of marketability to the common stock to account for the lack of access to an active public market.

In connection with this offering, all outstanding shares of our preferred stock will be converted to common stock.

Results of Operations

Comparison of the Years Ended December 31, 2019 and 2018

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

	Year Ended December 31,		
	2019	2018	Increase (Decrease)
Operating expenses:			
Research and development	$ 16,220	$ 8,099	$ 8,121
General and administrative	4,586	3,494	1,092
Total operating expenses	20,806	11,593	9,213
Loss from operations	(20,806)	(11,593)	9,213
Other income (expense):			
Interest income	1,106	284	822
Other expense, net	(24)	(29)	5
Change in fair value of preferred stock tranche liability	—	4,374	(4,374)
Other income (expense), net	1,082	4,629	(3,547)
Net loss	$(19,724)	$ (6,964)	$ 12,760

Research and Development Expense

Research and development expense increased by $8.1 million to $16.2 million for the year ended December 31, 2019 from $8.1 million for the year ended December 31, 2018. The increase in research and development expense was primarily attributable to the following:

- our manufacturing costs increased $3.2 million as a result of the manufacture of pre-engineering, engineering, and clinical trial batches of product for INZ-701 as we scaled our manufacturing process and manufactured material for our clinical trials;
- our toxicology costs increased $2.1 million as a result of the conduct of increased preclinical toxicology studies in preparation for the planned filing of an IND for INZ-701;
- our employee compensation, including stock-based compensation, benefits and related recruiting costs increased $1.3 million primarily due to an overall increase in research and development headcount from 11 employees at December 31, 2018 to 16 employees at December 31, 2019; and
- an increase of $1.5 million due to increases of $0.8 million for consulting and professional fees as we engaged various third-parties to assist in areas such as quality and regulatory, $0.3 million for lab supplies, $0.2 million for rent and $0.2 million for travel.

We expect that our research and development costs will continue to increase for the foreseeable future as we prepare for clinical trials of INZ-701, further scale our manufacturing processes and advance development of INZ-701 for additional indications or of additional product candidates.

General and Administrative Expense

General and administrative expense increased by $1.1 million to $4.6 million for the year ended December 31, 2019 from $3.5 million for the year ended December 31, 2018. The increase in general and

administrative expense was primarily attributable to an increase in our employee compensation, including stock-based compensation, benefits and recruiting fees related to an increase in the number of general administrative employees. We expect that our general and administrative expense will increase in future periods as we expand our operations and incur additional costs in connection with being a public company.

Interest Income

Interest income increased by $0.8 million to $1.1 million for the year ended December 31, 2019 from $0.3 million for the year ended December 31, 2018. The increase was primarily attributable to higher average cash and investment balances during 2019 as compared to 2018.

Other Expense, net

Other expense, net, consisting primarily of foreign exchange losses for the year ended December 31, 2019, was consistent with the year ended December 31, 2018.

Change in Fair Value of Preferred Stock Tranche Liability

Change in fair value of preferred stock tranche liability decreased from $4.4 million for the year ended December 31, 2018 to zero for the year ended December 31, 2019. The change in fair value of the Series A Convertible Preferred Stock tranche liability consists of the re-measurement gains associated with changes in the fair value of the Tranche Right. Upon issuance of the additional shares of Series A Convertible Preferred Stock in November 2018, the Tranche Right was settled, and therefore, there were no gains or losses during the year ended December 31, 2019.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have not generated any revenue and have incurred significant operating losses and negative cash flows from our operations. To date, we have funded our operations primarily with proceeds from the sales of convertible preferred stock. Through December 31, 2019, we had received net cash proceeds of $77.9 million from sales of our convertible preferred stock. As of December 31, 2019, we had cash, cash equivalents and short-term investments of approximately $47.1 million.

The Series A-2 Convertible Preferred Stock Purchase Agreement provides for a second tranche closing of $33.7 million based on the achievement of a defined milestone or earlier upon board and requisite stockholder approval to waive such requirement, pursuant to which the investors are required to purchase, and we to sell, an additional 23,566,431 shares of Series A-2 Convertible Preferred Stock at $1.43 per share upon the achievement of the defined milestone. As of December 31, 2019, that milestone was not achieved.

Cash in excess of immediate requirements is invested primarily with a view to liquidity and capital preservation. The following table provides information regarding our total cash, cash equivalents and short-term investments at December 31, 2019 and 2018 (in thousands):

	December 31,	
	2019	2018
Cash and cash equivalents	$ 31,605	$ 35,966
Short-term investments	15,527	7,197
Total cash, cash equivalents and short-term investments	$ 47,132	$ 43,163

Cash Flows

The following table provides information regarding our cash flows for the years ended December 31, 2019 and 2018 (in thousands):

	Years Ended December 31,	
	2019	2018
Net cash used in operating activities	$ (18,810)	$ (9,437)
Net cash (used in) provided by investing activities	(8,391)	9,006
Net cash provided by financing activities	22,970	31,945
Net (decrease) increase in cash, cash equivalents and restricted cash	$ (4,231)	$ 31,514

Net Cash Used in Operating Activities

The cash used in operating activities resulted primarily from our net losses adjusted for non-cash charges and changes in components of working capital.

Net cash used in operating activities was $18.8 million for the year ended December 31, 2019 compared to $9.4 million for the year ended December 31, 2018. The increase in cash used in operating activities of $9.4 million was primarily attributable to the increase in our net loss, adjusted for non-cash items, of $8.5 million, primarily due to increased research and development expenses.

Net Cash (Used in) Provided by Investing Activities

Net cash used in investing activities was $8.4 million for the year ended December 31, 2019 compared to net cash provided by investing activities of $9.0 million for year ended December 31, 2018. The decrease in cash flows from investing activities of $17.4 million was primarily attributable to a net increase in purchases of short-term investments as we converted excess cash to short-term investments.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was $23.0 million for the year ended December 31, 2019 compared to $31.9 million for year ended December 31, 2018. The decrease in cash provided by financing activities of $9.0 million reflects changes in the amounts of proceeds from issuances of convertible preferred stock. During the year ended December 31, 2019, we received net proceeds of $22.9 million from the issuance of Series A-2 Convertible Preferred Stock, as compared to net proceeds from the issuance of Series A and Series A-2 Convertible Preferred Stock during the year ended December 31, 2018 of $21.6 million and $10.4 million, respectively.

Funding Requirements

We expect to devote substantial financial resources to our ongoing and planned activities, particularly as we prepare for, initiate and conduct our planned Phase 1/2 clinical trials of INZ-701 for ENPP1 and ABCC6 deficiencies, and continue research and development and initiate additional clinical trials of, and seek marketing approval for, INZ-701 and any other product candidate we develop. We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we advance our preclinical activities and clinical trials. In addition, if we obtain marketing approval for INZ-701 or any other product candidates we develop, we expect to incur significant commercialization expenses related to product manufacturing, sales, marketing 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 or obtain adequate funds

when needed or on acceptable terms, we may be required to delay, limit, reduce or terminate our research and 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. In addition, attempting to secure additional financing may divert the time and attention of our management from day-to-day activities and distract from our research and development efforts.

Our future capital requirements will depend on many factors, including:

- the progress, costs and results of our planned Phase 1/2 clinical trials of INZ-701 for ENPP1 and ABCC6 deficiencies and any future clinical development of INZ-701 for these indications;
- the scope, progress, costs and results of research, preclinical testing and clinical trials of INZ-701 for additional indications;
- the number of and development requirements for additional indications for INZ-701 or for any other product candidates we develop;
- our ability to scale up our manufacturing processes and capabilities to support clinical trials of INZ-701 and any other product candidates we develop;
- the costs, timing and outcome of regulatory review of INZ-701 and any other product candidates we develop;
- potential changes in the regulatory environment and enforcement rules;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the payment of license fees and other costs of our technology license arrangements;
- the costs and timing of future commercialization activities, including product manufacturing, sales, marketing and distribution, for INZ-701 and any other product candidates we develop for which we may receive marketing approval;
- the amount and timing of revenue, if any, received from commercial sales of INZ-701 and any other product candidates we develop for which we receive marketing approval;
- potential changes in pharmaceutical pricing and reimbursement infrastructure;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property and proprietary rights and defending any intellectual property-related claims; and
- the extent to which we in-license or acquire additional technologies or product candidates.

As of December 31, 2019, we had cash, cash equivalents and short-term investments of approximately $47.1 million. We believe that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements through . However, we have based this estimate on assumptions that may prove to be wrong, and our operating plan may change as a result of many factors currently unknown to us. In addition, changing circumstances could cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more than currently expected because of circumstances beyond our control. As a result,

we could deplete our capital resources sooner than we currently expect. In addition, because the successful development of INZ-701 and any other product candidates that we pursue is highly uncertain, at this time we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of any product candidate.

Identifying potential product candidates and conducting preclinical 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 marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. We will not generate commercial revenues unless and until we can achieve sales of products, which we do not anticipate for a number of years, if at all. Accordingly, we will need to obtain substantial additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all, and may be impacted by the economic climate and market conditions. For example, market volatility resulting from the COVID-19 pandemic or any other future infectious diseases, epidemics or pandemics could also adversely impact our ability to access capital as and when needed.

Until such time, if ever, as we can generate substantial revenues from product sales, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution or 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 interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our operations and ability to take specific actions, such as incurring additional debt, making acquisitions, engaging in acquisition, merger or collaboration transactions, selling or licensing our assets, making capital expenditures, redeeming our stock, making certain investments or declaring dividends.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution 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.

Contractual Obligations

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

	Total	Less than 1 Year	1 to 3 years	3 to 5 years	More than 5 years
Minimum operating lease payments(1)	$2,994	$ 512	$1,056	$ 1,099	$ 327
Sponsored research agreements(2)	1,000	500	500	—	—
Minimum license obligations(3)	50	50	—	—	—

(1) Represents future minimum lease payments under our non-cancelable operating leases for office and laboratory space that expire between July 2020 and the second half of 2025. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes.
(2) Represents payments due under research agreements based on the terms of agreements.
(3) Represents minimum annual license fees under our license agreement with Yale. See “Business—Yale University License Agreement” for additional information about the license agreement with Yale, including with respect to other potential payments thereunder.

We enter into agreements in the normal course of business with CROs for preclinical studies and clinical trials, CMOs for clinical supply manufacturing, professional consultants for expert advice and other

vendors for other services for operating purposes. We have not included these payments in the table of contractual obligations above since the contracts do not contain any minimum purchase commitments and provide for termination on notice by us and we believe that our non-cancelable obligations under these agreements are not material.

In addition, under our license agreement with Yale, we will be required to make milestone payments and pay royalties and other amounts. We have not included any contingent payment obligations, such as milestones or royalties, in the table above as the amount, timing and likelihood of such payments are not known.

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, 2019, our cash equivalents consisted of primarily of short-term money market funds. As of December 31, 2019, our short-term investments consisted of commercial paper, corporate debt securities and government agency securities with maturities of less than one year. 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 of the investments in our portfolio and the low risk profile of our investments, an immediate change of 100 basis points in interest rates would not have a material effect on the fair market value of our investment portfolio 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; however, we have contracted with and may continue to contract with foreign vendors that are located in Europe. Our operations may be subject to fluctuations in foreign currency exchange rates in the future.

Inflation generally affects us by increasing our cost of labor and clinical trial 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, 2019 and 2018.

Emerging Growth Company Status

We are an “emerging growth company,” or EGC, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We may remain an EGC until the last day of the fiscal year in which the fifth anniversary of the closing of this offering occurs, although if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if we have annual gross revenues of $1.07 billion or more in any fiscal year, we would cease to be an EGC as of December 31 of the applicable year. We also would cease to be an EGC if we issue more than $1 billion of non-convertible debt over a three-year period.

For so long as we remain an EGC, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not EGCs. These exemptions include being permitted to provide only two years of audited financial statements in this prospectus, 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; not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting; 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 and reduced disclosure obligations regarding executive compensation; and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

In addition, the JOBS Act permits an EGC to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have elected to use the extended transition period for complying with new or revised accounting standards and will do so until such time that we either (1) irrevocably elect to "opt out" of such extended transition period or (2) no longer qualify as an EGC. As a result of this election, our consolidated financial statements may not be comparable to companies that comply with public company FASB standards' effective dates.

BUSINESS

Overview

We are a rare disease biopharmaceutical company developing novel therapeutics for the treatment of diseases of abnormal mineralization impacting the vasculature, soft tissue and skeleton. Through our in-depth understanding of the biological pathways involved in mineralization, we are pursuing the development of potentially first-in-class therapeutics to address the underlying causes of these debilitating diseases. It is well established that two genes, ENPP1 and ABCC6, play key roles in a critical mineralization pathway and that defects in these genes lead to abnormal mineralization. We are initially focused on developing a novel therapy to treat the rare genetic diseases of ENPP1 and ABCC6 deficiencies.

Our lead product candidate, INZ-701, is a soluble, recombinant, or genetically engineered, fusion protein that is designed to correct a defect in the mineralization pathway caused by ENPP1 and ABCC6 deficiencies. This pathway is central to the regulation of calcium deposition throughout the body and is further associated with neointimal proliferation, or the overgrowth of smooth muscle cells inside blood vessels. We have generated robust preclinical proof of concept data demonstrating that in animal models INZ-701 prevented pathological calcification, led to improvements in overall health and survival and prevented neointimal proliferation. We plan to file both an Investigational New Drug Application, or IND, with the U.S. Food and Drug Administration, or FDA, and a Clinical Trial Authorization, or CTA, with regulatory authorities in Europe for INZ-701 in . We plan to advance INZ-701 into two separate Phase 1/2 clinical trials, one in patients with ENPP1 deficiency and another in patients with ABCC6 deficiency. The FDA and the European Medicines Agency, or EMA, have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency. Beyond our development focus on INZ-701, we believe that our therapeutic approach has the potential to benefit patients suffering from additional diseases of abnormal mineralization, including those without a clear genetic basis.

A metabolic pathway that has been conserved throughout evolution in higher organisms is the key to regulating mineralization in the human body. If the proper function of this pathway is altered or disturbed, then both genetic and non-genetic diseases and conditions involving abnormal mineralization can result. In a properly functioning mineralization pathway, ENPP1 is responsible for converting extracellular molecules of adenosine triphosphate, or ATP, to pyrophosphate, or PPi, a regulator of calcium deposition throughout the body. ENPP1 is also responsible for converting extracellular ATP into a precursor of adenosine, a regulator of neointimal proliferation. A defect in the ENPP1 gene results in low levels of PPi, leading to abnormal mineralization in the vasculature and soft tissues, and in low levels of adenosine, leading to neointimal proliferation and narrowing of blood vessels and potential development of cardiovascular disease. In a properly functioning mineralization pathway, ABCC6 is responsible for transporting ATP from inside a cell to outside the cell. A defect in the ABCC6 gene reduces the extracellular ATP available to be used by ENPP1, thus also resulting in low levels of PPi and adenosine and leading to abnormal mineralization and neointimal proliferation.

ENPP1 and ABCC6 deficiencies are systemic, progressive and continuous diseases occurring over the course of a patient's lifetime, starting as early as in fetal development and spanning into adulthood. These diseases represent a significant unmet medical need, with high mortality rates for infants with ENPP1 deficiency and high levels of morbidity occurring for patients with these diseases throughout their life. ENPP1 deficiency is estimated to occur in approximately one in 200,000 births, and we believe there are between 11,000 and 12,000 patients worldwide with ENPP1 deficiency. ABCC6 deficiency is estimated to afflict approximately one per 50,000 individuals, and we believe there are more than 67,000 patients worldwide with ABCC6 deficiency. There are currently no approved therapies for ENPP1 or ABCC6 deficiency. Currently available treatments are only palliative, seeking to minimize the symptoms of these diseases.

We conducted what we believe is the largest retrospective, cross-sectional natural history study of 127 patients with a presumed diagnosis of ENPP1 deficiency. Preliminary results from this study suggest that the

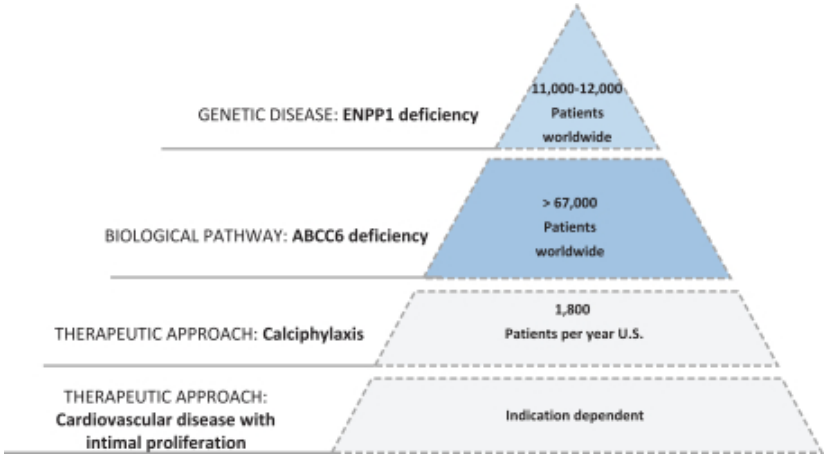
spectrum of manifestations for ENPP1 deficiency includes an infantile phase, a pediatric phase and an adult phase. Infants with ENPP1 deficiency have pathological vascular calcification, which has been referred to in the medical literature as generalized arterial calcification of infancy, or GACI, in which abnormal mineralization and neointimal proliferation result in narrowed blood vessels that can cause heart and kidney failure. Approximately 45% to 50% of infants with ENPP1 deficiency die within 12 months of birth. Children with ENPP1 deficiency who survive beyond infancy develop rickets, which has been referred to in the medical literature as autosomal-recessive hypophosphatemic rickets type 2, or ARHR2. Rickets leads to severe skeletal deformities, short stature, severe bone pain and increased bone fractures. These children also experience continuing vascular and organ calcification. In adults, in addition to further vascular and organ calcification, ENPP1 deficiency manifests as a condition referred to as osteomalacia. Osteomalacia leads to severe bone pain, fatigue, muscle weakness and risk of recurring bone fractures. We plan to conduct a prospective, longitudinal natural history study of patients with ENPP1 deficiency designed to test and validate our findings from the retrospective natural history study.

ABCC6 deficiency is associated with pathological mineralization in blood vessels and soft tissues throughout the body resulting in significant morbidity, including blindness, potentially life-threatening cardiovascular complications and skin calcification. Some infants with ABCC6 deficiency are diagnosed with a vascular calcification condition resembling the acute infantile form of ENPP1 deficiency. In older patients, ABCC6 deficiency presents as pseudoxanthoma elasticum, or PXE, a rare disorder in which individuals develop calcification of soft connective tissues, including in the eyes, cardiovascular system and skin.

Our lead product candidate, INZ-701, targets the restoration of a normal balance in PPi and adenosine. In our preclinical studies conducted in ENPP1-deficient mouse models, dosing with INZ-701 resulted in increased plasma PPi levels, reduction in calcium deposits in a variety of tissues, prevention of calcification in the heart and aorta, and improvements in overall health and survival. In ABCC6-deficient mouse models, dosing with INZ-701 also increased plasma PPi levels. Further, overexpressing ENPP1 in an ABCC6-deficient mouse model reduced calcification in key tissues. In addition to normalizing levels of PPi, in preclinical studies, INZ-701 prevented neointimal proliferation in both wild-type and ENPP1-deficient mice, which we believe is attributable to increased levels of adenosine.

Beyond ENPP1 and ABCC6 deficiencies, we believe that INZ-701 has the potential to provide therapeutic benefit to patients suffering from additional diseases of abnormal mineralization related to low PPi levels and diseases of neointimal proliferation related to low levels of adenosine, including diseases without a clear genetic basis. For example, calciphylaxis, a manifestation of chronic kidney disease, or CKD, may represent a particularly attractive area for drug development for abnormal mineralization. Calciphylaxis is characterized by pathological calcification of the vasculature in the skin and fat leading to blood clots and skin ulcers, likely as a result of low PPi levels. There are currently no approved therapies for calciphylaxis, and the condition has a reported one-year survival rate of approximately 50%.

Our Goal is to Expand Our Product Candidates Into Multiple Indications



We hold development and commercialization rights to our pipeline and programs, including INZ-701, on a worldwide basis. Our current development programs are protected through exclusive intellectual property rights, including with filed and issued patents covering composition of matter for ENPP1-Fc fusion proteins, including INZ-701, and methods of treatment. We obtained an exclusive, worldwide license to our foundational intellectual property rights from Yale University, or Yale, in January 2017.

We have assembled a leadership team with a strong track record and experience in building and managing biopharmaceutical companies and in rare disease research, development and commercialization. Our executives have experience, in particular, in developing new markets, obtaining marketing approval for and commercializing therapies for rare diseases that had not previously been the focus for drug development. Axel Bolte, our President and Chief Executive Officer and a co-founder of our company, had a successful career in healthcare venture capital, investing in and serving on the boards of directors of multiple private and public biopharmaceutical companies. Members of our science and medical leadership team previously led various discovery, development and manufacturing programs at Genzyme Corp., Shire Human Genetic Therapies, BioMarin Pharmaceutical, Inc., Alexion Pharmaceuticals, Inc., Pfizer Inc. and Ultragenyx Pharmaceutical Inc., among other companies. Our operations have been funded to date by leading investors, including Longitude Venture Partners, New Enterprise Associates, Novo Holdings A/S, Pivotal bioVenture Partners, RA Capital Healthcare Fund and Sofinnova Venture Partners.

Strategy

Our goal is to develop and commercialize safe and effective therapies for the treatment of patients suffering from a broad range of genetic and non-genetic diseases of abnormal mineralization. The critical components of our strategy to achieve this goal include:

- **Efficiently advance clinical development for our lead product candidate, INZ-701, with an initial focus on ENPP1 and ABCC6 deficiencies.** We have generated robust preclinical proof of concept data and plan to file an IND with the FDA and a CTA with the regulatory authorities in Europe for INZ-701 in . We plan to advance INZ-701 into two separate Phase 1/2 clinical trials, one in patients with ENPP1 deficiency and another in patients with ABCC6 deficiency. We believe that our clinical strategy of linking the restoration of plasma PPi levels to measures of physiological and clinical efficacy may provide an efficient path for development and availability of clinical data.

- **Expand our research and development efforts for INZ-701 in additional diseases of abnormal mineralization and for other therapies beyond INZ-701.** Based on its mechanism of action, we believe that INZ-701 has the potential to normalize plasma PPi levels and provide therapeutic benefit to patients beyond those with monogenic defects in the ENPP1 or ABCC6 gene, including patients with calciphylaxis. As a science-driven company, we also plan to continue to apply our expertise to identify and develop new therapeutics for diseases of abnormal mineralization. For example, we are currently exploring the potential for development of a gene therapy for ENPP1 deficiency.

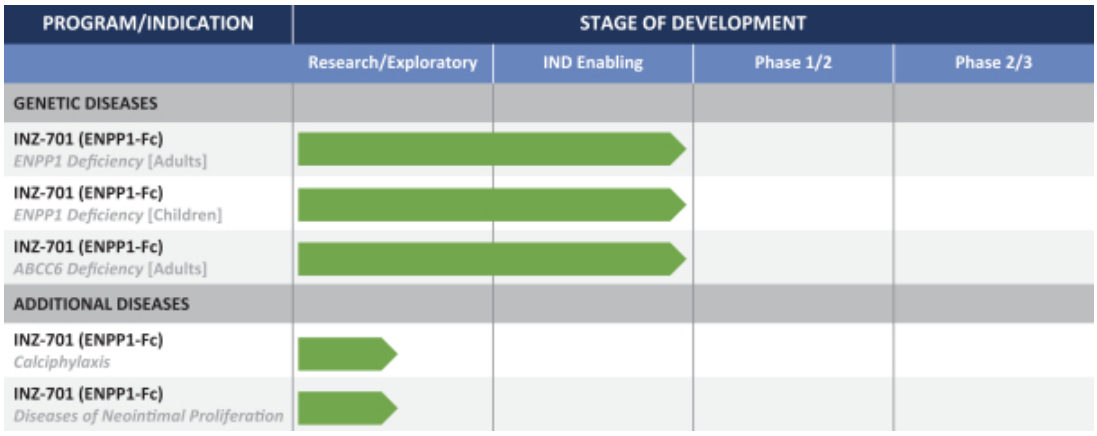
- **Establish commercialization infrastructure for the marketing and sale of INZ-701 for rare indications.** We hold development and commercialization rights to INZ-701 on a worldwide basis. Given the limited number of specialists who treat the rare diseases we are initially pursuing, we believe that we will be able to commercialize INZ-701, if approved, in these indications with a small, targeted, internal sales and commercial organization in the United States and other major markets. Our executives have a strong track record and experience in developing new markets, obtaining marketing approval for and commercializing therapies for rare diseases that had not previously been the focus for drug development. We may explore the use of a variety of types of collaboration, co-promotion, distribution and other marketing arrangements with one or more third parties to commercialize our product candidates in smaller markets outside the United States or for other situations in which a larger sales and marketing organization is required.

- **Build a patient-focused company to treat diseases of abnormal mineralization.** We intend to continue to engage with patient advocacy groups, medical centers of excellence and medical specialists in an effort to expeditiously bring our therapy to patients. In building a patient-focused company to address the needs of both genetically defined and broader patient populations, we are working with leading clinicians and patient organizations to better understand the symptoms and consequences of diseases of abnormal mineralization and to increase awareness of the commonalities among these diseases. We have completed a retrospective, cross-sectional natural history study of patients with ENPP1 deficiency and have several ongoing and planned programs, including a burden of disease study and a prospective natural history study. We believe that the findings from these studies and others like them will be important in supporting future trial design and patient enrollment.

- **Continue to expand our scientific understanding of abnormal mineralization, our related intellectual property portfolio and our rights to complementary technologies.** We intend to continue to pursue new scientific and therapeutic insights to position ourselves as leaders in the treatment of diseases of abnormal mineralization impacting the vasculature, soft tissue and skeleton. Both in our company laboratory and in collaboration with academic and research institutions, we plan to continue to conduct translational experiments, validate disease models and evaluate new treatment modalities in our area of focus. Our current development programs are protected through exclusive intellectual property rights, including with filed and issued patents covering composition of matter for ENPP1-Fc fusion proteins, including INZ-701, and methods of treatment. We expect to expand the breadth of our intellectual property portfolio over time to incorporate novel insights we obtain through our research. In addition, we may further expand our development pipeline by opportunistically in-licensing or acquiring the rights to complementary technologies and product candidates.

Pipeline

Our lead development programs, for which we hold development and commercialization rights on a worldwide basis, are summarized in the table below.



Pathological Diseases of Abnormal Mineralization: A Significant Unmet Need

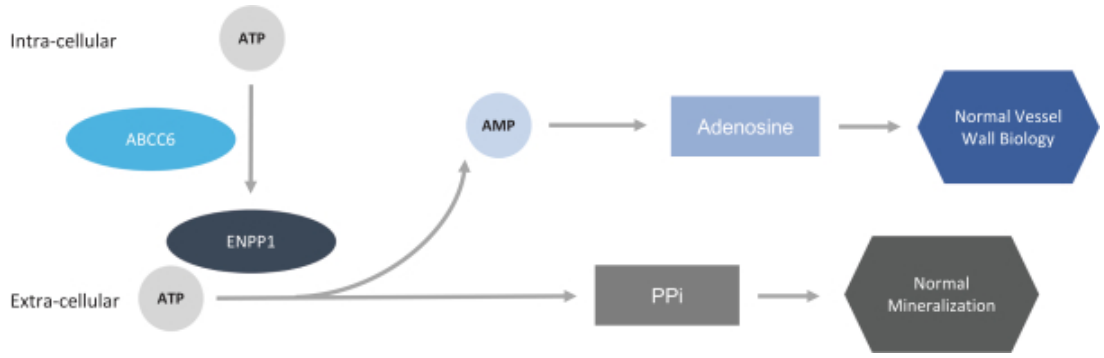
Mineralization is a biological process during which an organism deposits calcium salt crystals, typically calcium polyphosphates, onto an organic extracellular matrix that gives rise to essential structures, such as bone and teeth in humans. In human development, this normal mineralization process begins as early as in fetal development and continues throughout life. Diseases of abnormal mineralization have high levels of morbidity and mortality and can have a genetic and non-genetic basis.

The Mineralization Pathway

A metabolic pathway that has been conserved throughout evolution in higher organisms is the key to regulating mineralization in the human body. Multiple enzymes and other proteins perform sequential reactions in this pathway as part of a normal mineralization process.

In a properly functioning mineralization pathway, the protein encoded by the ABCC6 gene (ATP-Binding Cassette in the C6 family) located on the cellular membrane is responsible for transporting adenosine triphosphate, or ATP, from inside a cell to outside the cell. The enzyme encoded by the ENPP1 gene (ectonucleotide pyrophosphatase/phosphodiesterase 1) then cleaves ATP into pyrophosphate, or PPi, and adenosine monophosphate, or AMP. PPi is a potent regulator of mineralization and, in particular, controls the rate of calcium crystal deposition in bone. AMP is further metabolized into adenosine, a potent regulator of cellular proliferation that, in particular, modulates a blood vessel's response to injury and is responsible for preventing neointimal proliferation, or the overgrowth of smooth muscle cells inside blood vessels.

The normal function of this mineralization pathway is depicted in the figure below.

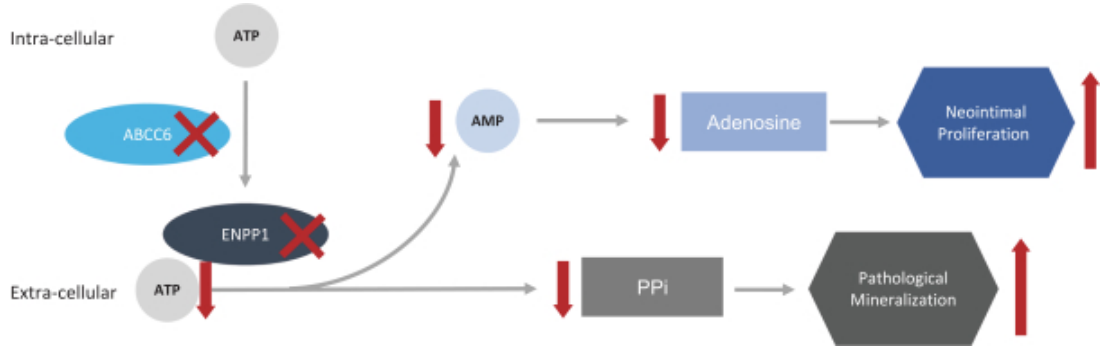


Pathology of Diseases of Abnormal Mineralization

If the proper function of the key mineralization pathway is altered or disturbed, then both genetic and non-genetic diseases and conditions involving abnormal mineralization can result. Genetic mutations affecting ENPP1, a critical enzyme in the mineralization pathway, result in low levels of PPi and AMP, a precursor of adenosine. Genetic mutations affecting ABCC6, a critical protein in the mineralization pathway, decrease the availability of extracellular ATP required for proper ENPP1 function and give rise indirectly to low levels of PPi and AMP, a precursor of adenosine.

Low levels of PPi lead to abnormal mineralization and pathological calcification in areas of the body where it should not occur, referred to as ectopic calcification. This ectopic calcification occurs in the vasculature and soft tissue, including multiple organ systems, and results in disease. The heart, kidney and skin are especially vulnerable to the effects of abnormal mineralization and pathological, ectopic calcification. Pathological, ectopic calcification in blood vessels inside bones can also interfere with normal skeletal mineralization. Low levels of adenosine lead to the narrowing and obstruction of blood vessels caused by neointimal proliferation and potential development of cardiovascular disease. ENPP1 and ABCC6 deficiencies are systemic, progressive and continuous diseases occurring over the course of a patient's lifetime, starting as early as in fetal development and spanning into adulthood.

The consequences of genetic mutations affecting either ENPP1 or ABCC6 are depicted in the figure below.



ENPP1 Deficiency and Disease Manifestations

ENPP1 deficiency is a rare, inherited, genetic inborn error of metabolism caused by mutations in the ENPP1 gene. The condition is inherited as a recessive trait in which mutations in the ENPP1 gene result in

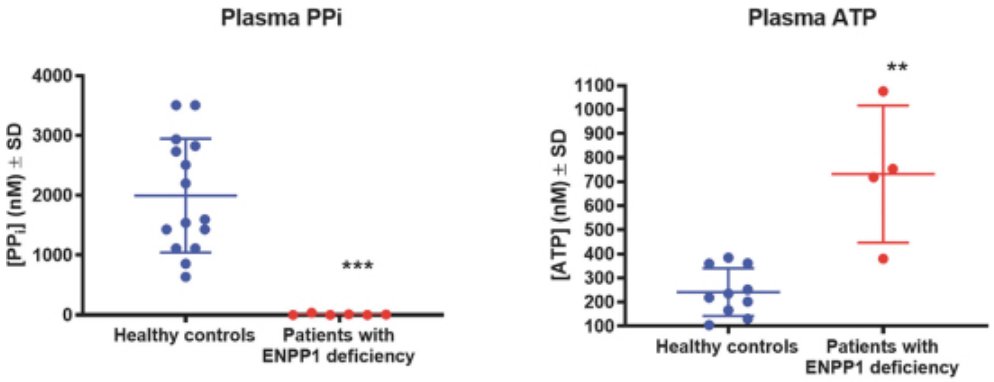
decreased or absent activity of the ENPP1 enzyme. ENPP1 deficiency results in low plasma levels of PPi and neointimal proliferation, and is a single, systemic, progressive and continuous disease with high mortality and morbidity. The spectrum of manifestations for ENPP1 deficiency includes an infantile phase, a pediatric phase and an adult phase.

In the acute infantile phase, which has been referred to as GACI in the medical literature, ENPP1 deficiency is characterized by narrowing of large and medium arteries caused by severe and pathological vascular calcification and neointimal proliferation, resulting in dysfunction and potential failure of major organs, such as the heart and kidneys. The disease can be diagnosed prenatally when an ultrasound shows characteristic calcifications in the fetus. Infants with ENPP1 deficiency have clinical signs of hypertension, heart disease and kidney disease even at birth. Mortality caused by ENPP1 deficiency is at the highest during the infantile phase and occurs predominantly in the first 12 months of life. Approximately 45% to 50% of infants with ENPP1 deficiency die within 12 months of birth. If they survive the crisis of infancy during the first 12 months of life, individuals with ENPP1 deficiency are likely to survive through adolescence and beyond, but with significant morbidity and a low quality of life.

In the progressive pediatric phase, in addition to continuing vascular and organ calcification, ENPP1 deficiency is characterized by the onset of rickets, which has been referred to in the medical literature as autosomal-recessive hypophosphatemic rickets type 2, or ARHR2. The continuing calcification of arteries in bones induces the bone to produce a hormone known as fibroblast growth factor-23 (FGF23), which in turn causes the kidneys to waste phosphate, giving rise to rickets. Rickets leads to severe skeletal deformities, short stature, severe bone pain and increased risk of bone fractures. In addition, children with ENPP1 deficiency may experience excess calcification in joints and dental problems caused by deformities in the growth of adult teeth. Early onset of hearing loss has also been reported in these children. Patients with pediatric ENPP1 deficiency experience impaired growth and development and generally decreased quality of life, including impaired activities of daily living.

In the adult phase following closure of the bone growth plates at the end of adolescence, in addition to continuing vascular and organ calcification, ENPP1 deficiency manifests as osteomalacia. Osteomalacia leads to severe bone pain, fatigue, muscle weakness and risk of recurring bone fractures. Adults with ENPP1 deficiency experience significant functional and cognitive impairment and generally decreased quality of life, including impaired activities of daily living.

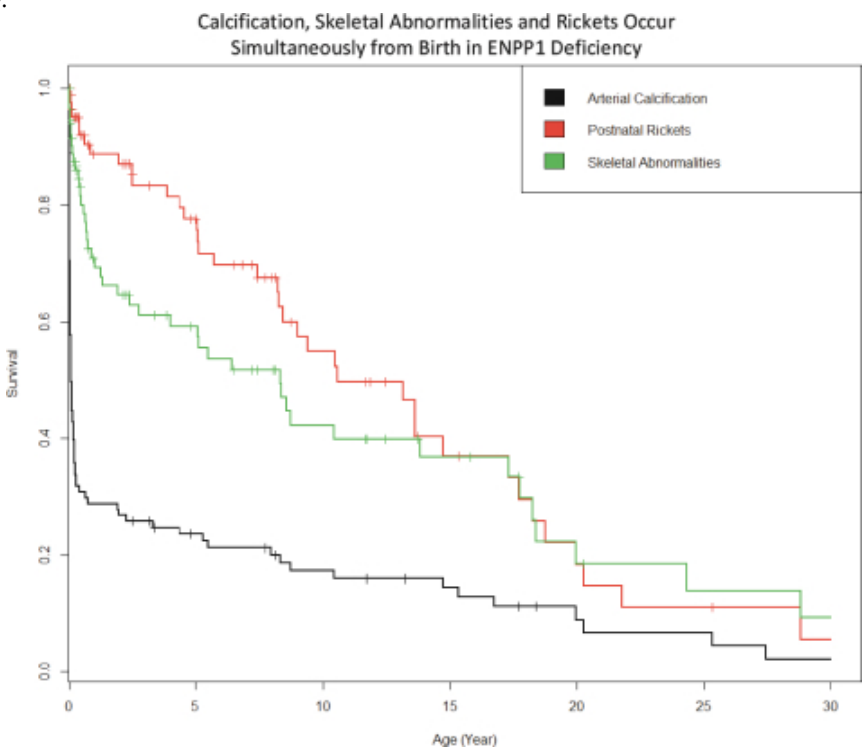
The graphs below, adapted from a third-party study, show that patients with ENPP1 deficiency have decreased levels of PPi and elevated levels of ATP in the plasma. This study measured plasma levels of PPi and plasma levels of ATP in healthy volunteers between 19 and 40 years of age and in patients with ENPP1 deficiency between the ages of one month and 19 years of age. A p-value is a conventional statistical method for measuring the statistical significance of clinical results. A p-value of less than 0.05 is generally considered to represent statistical significance, meaning that there is a less than 5% likelihood that the observed results occurred by chance. Values are presented as the mean ± standard deviation (SD). In these graphs, the symbol ** represents a p-value of less than 0.005 and the symbol *** represents a p-value of less than 0.001.



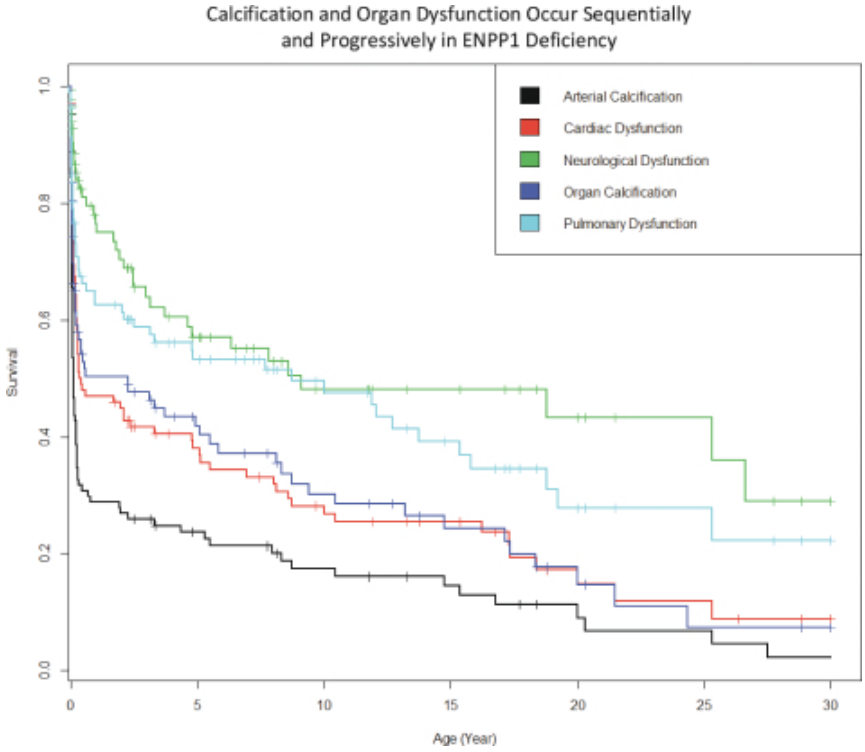
Retrospective Natural History Study

We conducted what we believe is the largest retrospective, cross-sectional, natural history study of infants, children and adults with a presumed diagnosis of ENPP1 deficiency, including subjects with the acute form of ABCC6 deficiency who may have been diagnosed as ENPP1 infants. The U.S. National Institutes of Health, or NIH, and the University of Münster in Germany contributed data on 127 subjects across 18 countries to this natural history study. Preliminary results from the study suggest that ENPP1 deficiency, regardless of its phenotypic manifestation or original diagnosis as GACI or ARHR2, appears to be a systemic, progressive and continuous disease that occurs over the course of a patient's lifetime.

As shown in the graph below, in our natural history study, arterial calcification preceded skeletal abnormalities, which preceded postnatal rickets. This data is shown using a Kaplan–Meier curve, also known as the product limit estimator, a non-parametric statistic used to estimate the probability of an event occurring given a defined time frame. While they occur at a defined rate, these manifestations occur simultaneously and concurrently following birth. The data indicate that the condition referred to as GACI in the medical literature is not independent of the condition referred to as ARHR2 in the medical literature. Preliminary results from our study suggest that arterial calcification and rickets are inseparable and dependent phenomena of ENPP1 deficiency.



The data also suggest that patients who survive their first 12 months of life continue developing a systemic, progressive disease involving arterial, skeletal and other organ calcifications, leading to physiological dysfunction across many systems. The graph below shows the Kaplan–Meier curve demonstrating systemic progression of the disease. The following manifestations of disease occur in progression: arterial calcification, cardiac dysfunction, organ calcification, pulmonary dysfunction and neurological dysfunction.



The data suggest that arterial calcification, organ calcification and organ dysfunction proceed in a progressive manner, with organ-specific symptoms emerging sequentially with time well into adulthood.

Based on our retrospective natural history study, we believe that ENPP1 deficiency is characterized by concurrent onset of manifestations, albeit at different rates, and that ENPP1 deficiency is a systemic, progressive and continuous disease.

We plan to conduct a prospective, longitudinal natural history study of patients with ENPP1 deficiency designed to test and validate our findings from the retrospective natural history study.

ENPP1 Deficiency Incidence and Prevalence; Current Standard of Care

ENPP1 deficiency is estimated to occur in approximately one in 200,000 births, and we believe there are between 11,000 and 12,000 patients worldwide with ENPP1 deficiency. There are approximately 200 published cases of ENPP1 deficiency in the medical literature. To gather more information about patient symptoms and diagnoses of ENPP1 deficiency, we conducted an online physician survey in 2019. In our survey, which included select physician specialties in the United States, Canada and five major European countries, we identified 623 alive patients in these countries affected by ENPP1 deficiency following completion of 1,001 patient surveys. We have also completed an epidemiological study that projects the worldwide prevalence of ENPP1 deficiency.

Based on this study and our physician survey, we believe that there are approximately 11,850 patients worldwide with ENPP1 deficiency.

There are currently no approved therapies for ENPP1 deficiency. Currently available treatments are only palliative, seeking to minimize the symptoms of this disease. Some retrospective studies have reported potential therapeutic effect in infants of the bisphosphonate etidronate that is normally used to treat osteoporosis. However, these findings have been controversial due to selection bias in the study. In addition, etidronate has been discontinued in the United States, and bisphosphonate use generally has been further associated with longer term adverse effects on skeletal development. Administration of vitamin D3, oral phosphate and other agents are sometimes used to alleviate signs and symptoms of ENPP1 deficiency, although oral phosphate can actually increase the risk of pathological calcification. In a third-party healthy volunteer study, treating PPi deficiency by adjusting the diet was an inefficient process, with only a small fraction of dietary PPi being absorbed.

ABCC6 Deficiency and Disease Manifestations

ABCC6 deficiency is a rare, inherited, genetic inborn error of metabolism caused by mutations in the ABCC6 gene. The systemic and progressively debilitating condition is inherited as a recessive trait in which mutations in the ABCC6 gene result in decreased or absent activity of the ABCC6 protein.

ABCC6 deficiency results in low plasma levels of PPi and is associated with pathological mineralization in blood vessels and soft tissues throughout the body, resulting in significant morbidity, including blindness, potentially life-threatening cardiovascular complications and skin calcification. The pathological mineralization associated with ABCC6 deficiency is the result of ectopic calcification in elastic fibers. Elastic fibers are a component of connective tissue, which provides strength and flexibility to structures throughout the body. Ectopic calcification can affect function in elastic fibers in the eyes, blood vessels and skin, and less frequently in other areas such as the digestive tract.

Some infants with ABCC6 deficiency are diagnosed with a vascular calcification condition resembling the acute infantile form of ENPP1 deficiency. In older patients, ABCC6 deficiency presents as pseudoxanthoma elasticum, or PXE, a rare disorder in which individuals develop calcification of soft connective tissues, including in the eyes, cardiovascular system and skin.

Individuals with PXE often have abnormalities in the eyes, such as a change in the pigmented cells of the retina or angioid streaks that occur when tiny cracks form in the elastic membrane, referred to as Bruch’s membrane, under the retina. Subsequent bleeding and scarring of the retina known as choroidal neovascularization may also occur, which together with the damage to Bruch’s membrane can cause vision loss. A recent report stated that 37% of PXE patients over the age of 50 experienced visual impairment and 15% were legally blind. Pathological mineralization of the blood vessels that carry blood from the heart to the rest of the body may cause other signs and symptoms of PXE. Ectopic calcification narrows blood vessels, particularly in the lower extremities, and leads to claudication, characterized by cramping and pain during exercise due to decreased blood flow to the arms and legs. Individuals with PXE may also have yellowish bumps called papules on their neck, underarms and other areas of the skin surrounding joint bends. These papules are painful, can impair joint movement and are an indication of a general systemic pathological soft tissue calcification process.

Neointimal proliferation is also a pathophysiological feature of PXE. Narrowing of blood vessels accelerates in PXE patients, resulting in higher than normal cardiovascular incidents, such as ischemic stroke and early myocardial infarctions. The number of PXE patients with cardiovascular involvement is estimated at more than 21,000 worldwide. Bleeding in the gastrointestinal tract, in particular the stomach, has been reported to occur in approximately 13% of PXE patients.

ABCC6 Deficiency Incidence and Prevalence; Current Standard of Care

ABCC6 deficiency is estimated to afflict approximately one per 50,000 individuals, with the disease being diagnosed twice as frequently in females as in males, and we believe there are more than 67,000 patients worldwide with ABCC6 deficiency.

There are currently no approved therapies for ABCC6 deficiency. Currently available treatments are only palliative, seeking to minimize the symptoms of this disease. Ophthalmic symptoms are typically treated with intravitreal injections of vascular endothelial growth factor inhibitors to slow the progression of choroidal neovascularization. However, damage to Bruch's membrane in these patients leads to continued and recurring choroidal neovascularization, causing vision loss. The current treatment approach for slowing or limiting the cardiovascular manifestations of PXE is based on the reduction of cardiovascular risk factors through lifestyle changes or in some cases by taking cholesterol-lowering agents. In the event of severe vascular disease, patients may undergo standard surgical bypass or angioplasty procedures.

Non-genetic Implications of Pathological Mineralization

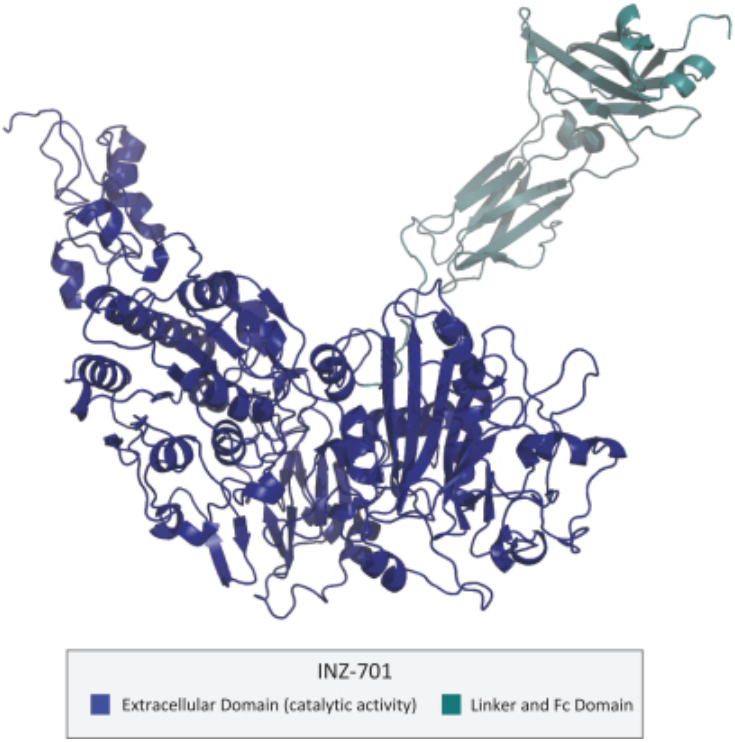
Abnormal mineralization and neointimal proliferation may also manifest in non-genetic diseases, such as calciphylaxis. Calciphylaxis, a manifestation of CKD, is associated with low levels of PPi and is characterized by pathological calcification of the vasculature in the skin and fat leading to blood clots and skin ulcers. This disease has a reported one-year survival rate of approximately 50%. Calciphylaxis affects between 1% and 4% of patients with end stage renal disease. The estimated incidence of calciphylaxis is at least 1,800 new patients per year in the United States. There are currently no approved therapies for calciphylaxis, although use of sodium thiosulfate, a chelating agent intended to lower calcium content in the blood, reportedly ameliorates symptoms. Patients also are often advised to maintain a low phosphate diet. Neointimal proliferation in the vasculature is a hallmark of a number of non-genetic diseases in which arteries have been damaged or disrupted by insertion of a stent, bypass graft occlusion, transplant vasculopathy or inflammation known as arteritis.

Our Solution: INZ-701

Overview of INZ-701

INZ-701 is a soluble, recombinant, or genetically engineered, protein containing the extracellular domain of native human ENPP1 fused, or linked, to the Fc domain, or crystallizable fragment, of the immunoglobulin IgG1. In its native form, ENPP1 is a transmembrane enzyme with a modular structure consisting of a short intracellular domain, a single transmembrane domain and an extracellular domain that contains a conserved catalytic site responsible for enzymatic activity. ENPP1 is expressed predominantly in the liver and, to a lesser extent, in the kidney and bone. INZ-701 contains the extracellular soluble domain of ENPP1 fused to the Fc domain of IgG1 to minimize immunogenicity, stabilize the construct, increase the plasma half-life and allow ease of purification.

The presumed crystal structure of INZ-701 is depicted in the figure below.



INZ-701 is designed to replace the lost enzymatic function of genetically deficient ENPP1 by restoring the normal balance in PPi and adenosine for ENPP1 deficiency and providing therapeutic effect to treat other diseases, like ABCC6 deficiency, involving low PPi levels. In contrast to native ENPP1, INZ-701 is a soluble protein that is designed to circulate throughout the body and access extracellular ATP and other nucleotide proteins. Like native ENPP1, INZ-701 cleaves ATP into PPi and AMP, a precursor of adenosine. Pharmacologically, INZ-701 is designed to have prolonged distribution and elimination phases, leading to steady-state concentrations in the blood over time and making dosing possible at infrequent intervals, potentially as long as weekly. INZ-701 is formulated for subcutaneous delivery.

In our preclinical studies conducted in ENPP1-deficient mouse models, dosing with INZ-701 resulted in increased plasma PPi levels, reduction in ectopic calcium deposits in a variety of tissues, prevention of calcification in the heart and aorta, and improvements in overall health and survival. In ABCC6-deficient mouse models, dosing with INZ-701 also increased plasma PPi levels. Further, overexpressing ENPP1 in an ABCC6-deficient mouse model reduced calcification in key tissues. In addition to normalizing levels of PPi, in preclinical studies, INZ-701 prevented neointimal proliferation in both wild-type and ENPP1-deficient mice, which we believe is attributable to increased levels of adenosine. The nonclinical INZ-701 toxicology studies that we conducted in two animal species showed no systemic adverse effects at doses that significantly exceeded potential human doses.

The FDA and EMA have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency.

INZ-701: Preclinical Results and Data

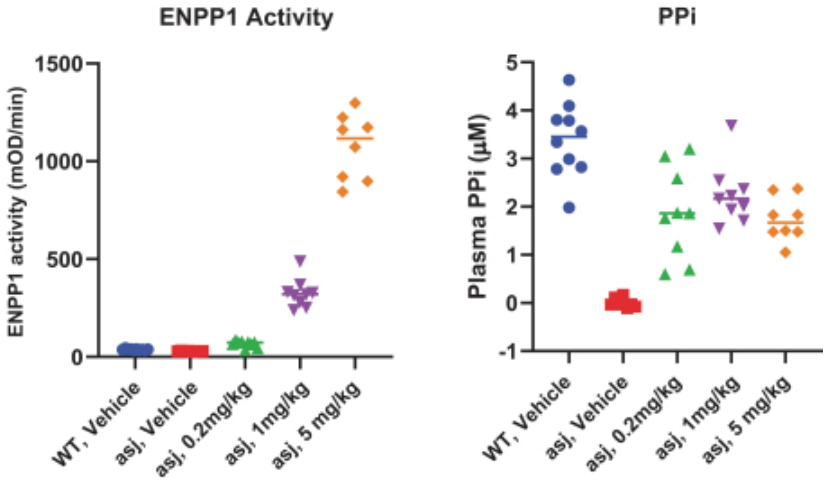
We determined preclinical proof of concept for INZ-701 using multiple mouse models containing inactivated genes for ENPP1. In these ENPP1-deficient mouse models, the animals have an increased propensity for vascular calcification and replicate key aspects of human disease due to ENPP1 deficiency. For example, an *asj* mouse contains a missense mutation in the ENPP1 gene and develops severe vascular calcification. In these mice, vascular calcification develops in newborn pups beginning around two weeks of age to fourteen weeks of age. This vascular calcification resembles that seen in human disease in infants due to ENPP1 deficiency, although in humans, extensive vascular calcification begins as early as in fetal development.

In our preclinical studies, we also used an ABCC6 mouse model with targeted ablation of the ABCC6 gene. In these mice, ectopic calcification in tissues resembles that seen in human disease due to ABCC6 deficiency. ABCC6 is primarily expressed in the liver. In mice, ABCC6 is responsible for approximately 90% of the levels of extracellular ATP, the primary source of extracellular PPi. Mice in which the gene for ABCC6 has been inactivated exhibit significantly reduced levels of extracellular PPi in blood.

Increase in PPi

As a result of an ENPP1 gene deletion, *asj* mice have very low or nondetectable levels of circulating PPi. Treatment of these mice with 0.2 mg/kg, 1 mg/kg or 5 mg/kg of INZ-701 by subcutaneous injection every other day for a period of four weeks led to significant increases in ENPP1 enzyme activity and PPi levels in plasma to approximately wild-type levels. These increases compensated for the loss of ENPP1 activity in this strain of mice. Mice treated with vehicle control did not exhibit similar increases.

The results of these initial studies are shown in the graphs below.



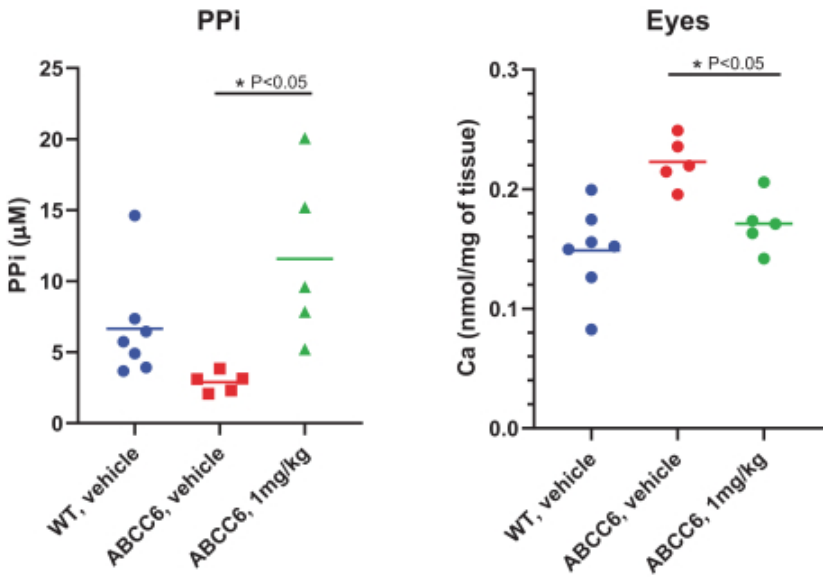
In addition to its ability to increase PPi levels in ENPP1-deficient mice, these initial studies showed that it is possible to administer doses of INZ-701 that normalized PPi levels in mice. We believe that increasing the amount of ENPP1 enzymatic activity by administration of INZ-701 could lead to further increases of PPi. We further believe this suggests that ENPP1 has the potential to provide therapeutic benefit in non-genetic diseases that involve ectopic calcification.

INZ-701 needs to show an impact on individuals who do and do not have mutations in the gene. We believe that our preclinical findings provide strong support for the eventual use of INZ-701 to treat patients with

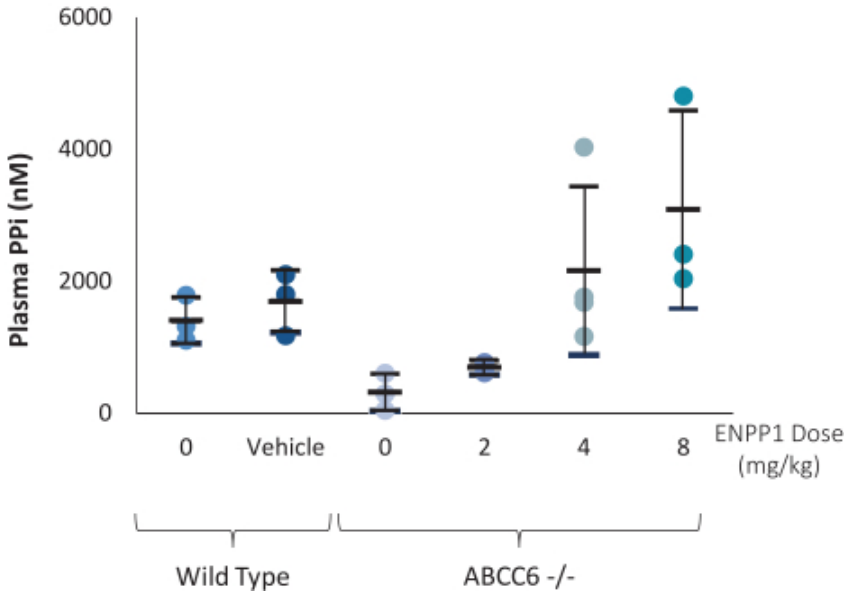
ABCC6 deficiency. Individuals with PXE have dysfunctional ABCC6 and decreased levels of plasma PPi due to deficiencies in exporting ATP from within the cell. In studies in mice with defects in the ABCC6 gene, plasma PPi levels are significantly reduced from wild-type mice but still higher than those seen in *asj* mice, which have an inactivated ENPP1 gene. In other studies, overexpression of ENPP1 in *asj* mice containing inactivated ENPP1 normalized plasma PPi levels. Addition of the same transgene of ENPP1 in ABCC6 mutant mice normalized PPi levels, suggesting that even in the case of limiting extracellular ATP, an increase in ENPP1 activity led to the formation of additional PPi.

Studies in mice with a genetic defect in ABCC6 led to the hypothesis that low levels of plasma PPi in patients with ABCC6 deficiency contributes to ectopic calcification. In studies in ABCC6-deficient mice, vascular calcification was correlated with plasma PPi level, with high levels of PPi resulting in significant reductions in cardiac calcium deposits. We believe this finding confirms the link between ABCC6, PPi and calcification. It also suggests that increasing plasma PPi in PXE patients offers potentially significant therapeutic benefit.

To further illustrate the potential of our approach, we dosed ABCC6-deficient mice with 1 mg/kg of INZ-701 and vehicle control for eight weeks. Treatment with INZ-701 resulted in an increase in plasma PPi levels consistent with those in normal healthy mice. The increase in plasma PPi levels was also associated with a decrease in pathological calcification of the eye, a target organ for ABCC6 deficiency and patients with PXE. The results of this study are shown in the graphs below. We believe these data support the use of INZ-701 in patients who carry mutations in the gene for ABCC6 and have soft tissue calcification due to low PPi levels.

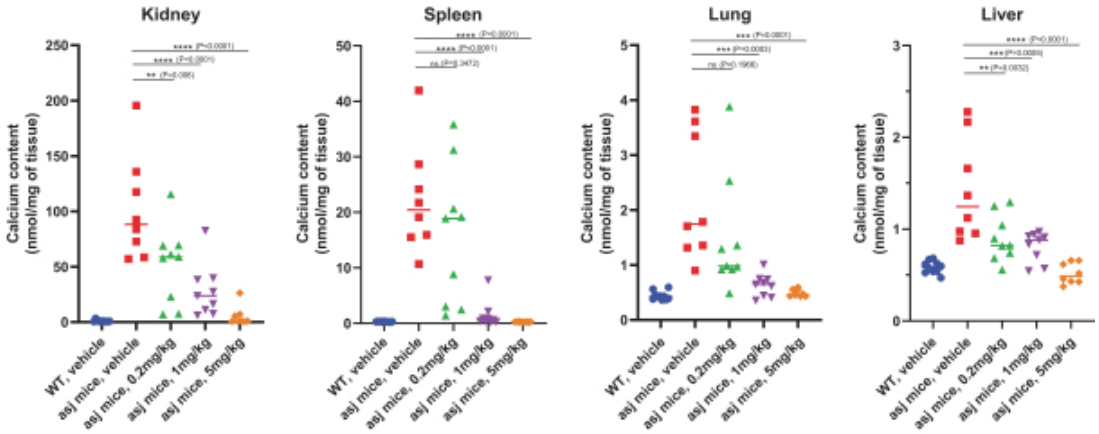


The above findings in ABCC6-deficient mice were also observed in another study, as shown in the graph below, where doses of mENPP1-Fc, a research version of INZ-701 containing a mouse Fc domain, ranging from 2 mg/kg to 8 mg/kg increased plasma PPi levels to wild-type levels. We believe that the data from these two studies in ABCC6-deficient mice suggest the potential of ENPP1-Fc fusion proteins to increase plasma PPi levels and thereby reduce abnormal tissue calcification.

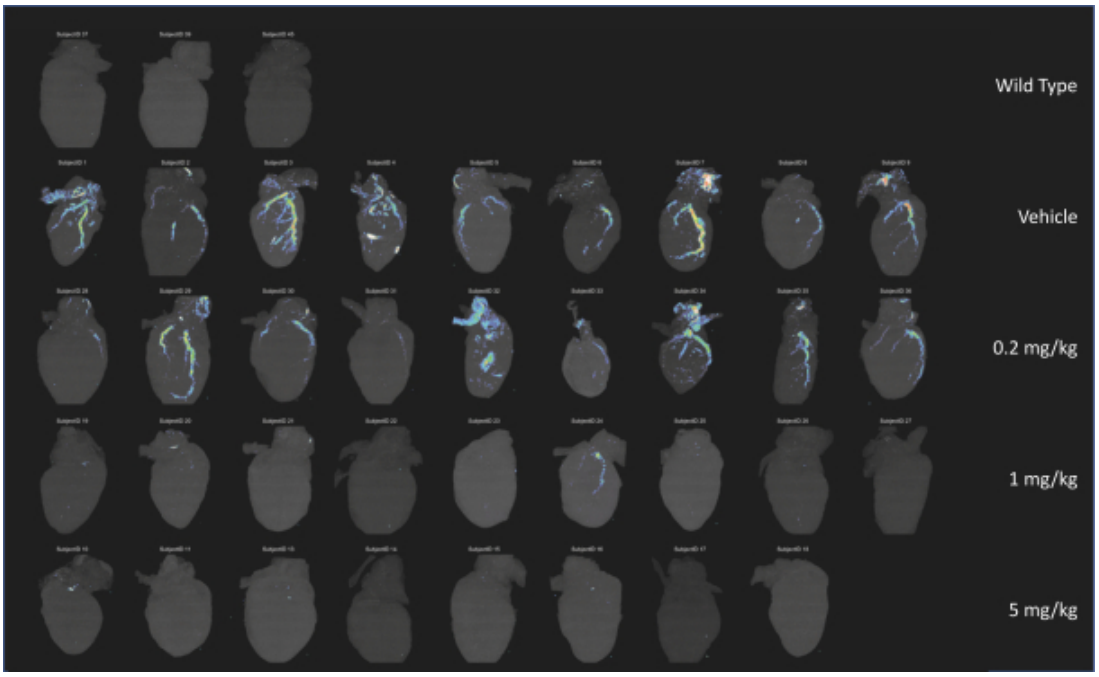


Reduction of Calcification

Asj mice fed a diet rich in phosphorous and low in magnesium, referred to as an acceleration diet, develop a number of complications due to calcification defects. These defects limit their locomotion, restrict their growth, cause vascular calcium deposits and lead to a shortened lifespan. We dosed mice on the acceleration diet, starting at week two, with both INZ-701 and vehicle control every other day for eight weeks. INZ-701 delivered to *asj* mice at doses of 0.2 mg/kg, 1 mg/kg and 5 mg/kg significantly reduced ectopic calcification in the kidney, spleen, lung and liver. As shown in the graph below, treatment with as little as 0.2 mg/kg of INZ-701 reduced calcium deposits in all tissues, and mice treated with 5 mg/kg of INZ-701 showed no differences in calcification compared to wild-type controls.

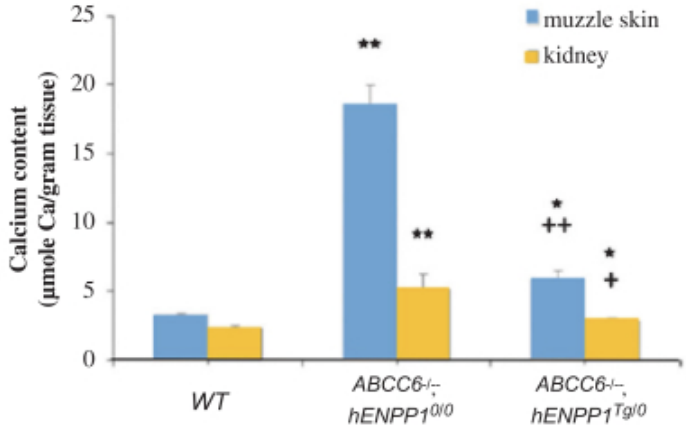


We obtained evidence of changes in vascular calcification in *asj* mice on the acceleration diet by carrying out scans of the heart and aorta using a technique known as high resolution micro computed tomography, or micro CT. *Asj* mice dosed with vehicle control showed variable but extensive calcification in the aorta, coronary artery and heart. *Asj* mice dosed with 0.2 mg/kg of INZ-701 showed a pattern and intensity of calcification signals similar to that shown when mice were dosed with vehicle control. In almost all cases, increasing the dose of INZ-701 to 1 mg/kg or 5 mg/kg completely prevented calcification in the heart and in the aorta. Only one out of nine mice from the 1 mg/kg group showed some evidence of cardiovascular calcification. Treatment with 5 mg/kg of INZ-701 completely prevented calcification in the heart and aorta. The dose response and degree of calcification measured by micro CT of the heart and aorta for each mouse in this study are illustrated below in increasing shades of blue and green. We believe these results suggest that INZ-701 may have the ability to significantly reduce the extent of ectopic calcification due to ENPP1 deficiency.



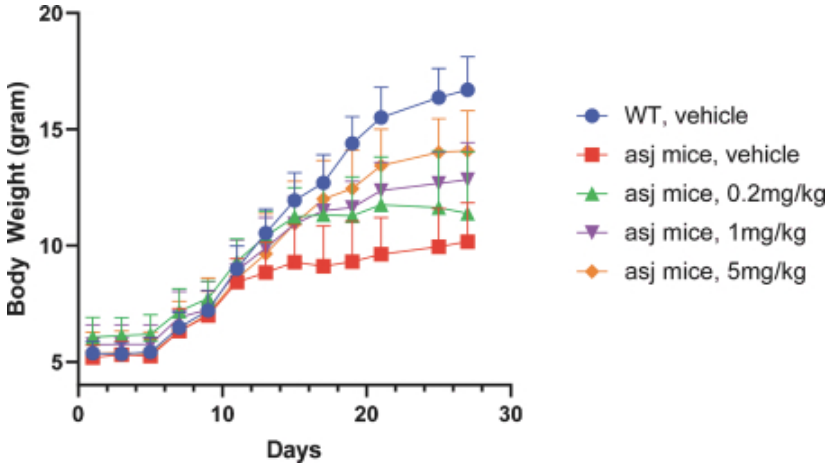
To investigate whether increasing plasma PPi levels would prevent ectopic calcification in ABCC6-deficient mice, ABCC6-deficient mice were crossed with a transgenic mouse with ubiquitous overexpression of human ENPP1 (the ABCC6 $^{-/-}$ hENPP1$^{tg/0}$ group in the graph below) and the results were compared to mice without overexpression of ENPP1 (the ABCC6$^{-/-}$ hENPP1$^{0/0}$ group in the graph below) and wild-type mice. At 12 weeks of age, all of the mice were euthanized and the mineralization and blood biochemistry was measured. In this study, ABCC6 deficiency in either the ENPP1 overexpression group or the group without ENPP1 overexpression caused significantly increased muzzle skin and kidney calcification. However, ENPP1 overexpression in an ABCC6-deficient mouse caused a significant reduction in the extent of calcification noted in the muzzle skin and kidney compared to control animals in which ENPP1 was not overexpressed. In addition, levels of plasma PPi in the ENPP1 overexpression ABCC6-deficient mice compared to wild-type mice and were significantly elevated compared to the ABCC6 mice without overexpression of ENPP1. This increase in plasma PPi levels in the ABCC6-deficient mice with ENPP1 overexpressed contributed to the reduction in pathological tissue calcification. We believe these data support our findings in the ABCC6-deficient mouse showing increases in plasma PPi levels described above. In particular, we believe that these data suggest that ABCC6 deficiency contributes to increased ectopic calcification and that ENPP1, through PPi, may be able to reduce the extent of calcification. In this graph, the symbol ** represents a p-value of less than 0.01 from wild-type, the symbol *

represents a p-value of less than 0.05 from wild-type, the symbol ++ represents a p-value of less than 0.01 from the ABCC6$_{-/-}$ hENPP1$_{0/0}$ group and the symbol + represents a p-value of less than 0.01.



Overall Health and Survival

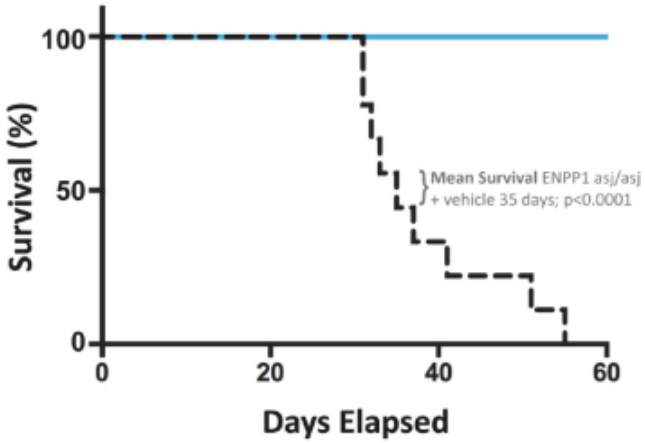
In addition to the measured changes in calcium deposition, treatment of *asj* mice with 0.2 mg/kg, 1 mg/kg or 5 mg/kg of INZ-701 and vehicle control every other day also led to improvements in overall health and survival. Mice treated with INZ-701 had a dose-dependent increase in body weight compared to mice treated with vehicle control, whose average weight at 27 days was only 60% that of wild-type mice. Compared to *asj* mice treated with vehicle control, mice treated with INZ-701 at 1 mg/kg and 5 mg/kg showed significant increases in body weight. The results of this study are shown in the graph below. At day 28, the mice treated with vehicle control were moribund compared to the mice treated with INZ-701.



In addition to body weight, treatment of *asj* mice with INZ-701 at 1 mg/kg and 5 mg/kg every other day led to improvement in a number of clinical signs associated with ENPP1 deficiency in mice, including pinned ear, hunched back, stilted and stiff legs, dehydration and rough hair coat. Treatment with INZ-701 also prevented *asj* mice from early mortality associated with becoming moribund.

In another experiment, we treated mice with either 1 mg/kg of mENPP1-Fc, a research version of INZ-701 containing a mouse Fc domain, or vehicle control starting on the fourteenth day of life and until day 55.

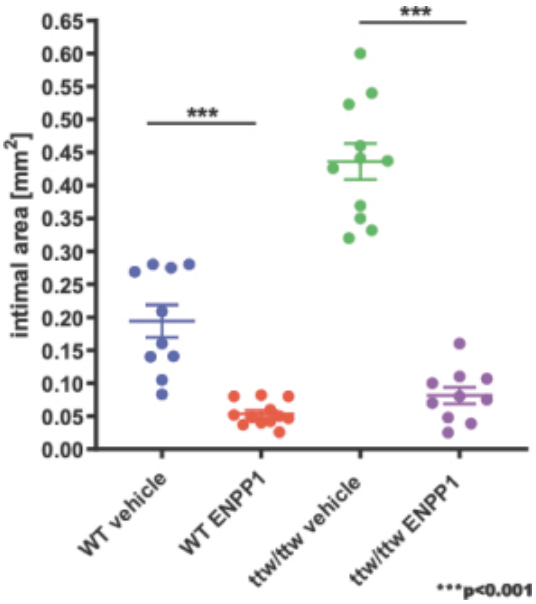
In this experiment, all eight mice treated with mENPP1-Fc survived the full 55 days of the trial (represented by the blue line in the graph below), while the median lifespan of the untreated mice decreased from 58 days to 35 days (represented by the black hatched line in the graph below).



Neointimal Proliferation

Neointimal proliferation resulting from ENPP1 deficiency was also replicated in corresponding animal models. In animal models, neointimal proliferation is accelerated during conditions of injury including ligation of the artery. The exact mechanism linking ENPP1 to neointimal proliferation is under investigation, but is believed to directly involve the adenosine pathway.

The increase in neointimal proliferation can be observed in a strain of ENPP1-deficient mice known as *ttw/ttw* mice in a carotid artery ligation model. These mice have a single base pair change in the ENPP1 gene producing ENPP1 deficiency. Following carotid injury where the carotid artery was ligated, the *ttw/ttw* mice were treated with 10 mg/kg of INZ-701 or vehicle control every other day for seven days pre-ligation surgery and for 14 days post-surgery. Vehicle control-treated *ttw/ttw* mice showed a significant increase in neointimal proliferation in the area of the artery at the sites of ligation. We believe these data, shown in the graph below, confirm that the INZ-701 treatment aligns with the earlier published findings indicating that ENPP1 treatment in mice inhibited ligation-induced neointimal proliferation. Importantly, INZ-701 also inhibited ligation-induced neointimal proliferation in wild-type mice without ENPP1 deficiency. These important findings in wild-type mice suggest that increasing levels of ENPP1 above normal may be useful in diseases in which vascular neointimal proliferation is increased. We plan to conduct studies in large animal models designed to confirm these findings regarding neointimal proliferation.



Safety and Toxicology

We have evaluated INZ-701 in toxicology studies in rats, mice and non-human primates. In rats and non-human primates, we evaluated INZ-701 in a single ascending dose study designed to evaluate a maximum tolerated dose of INZ-701 of 180 mg/kg and in a multiple ascending dose study at 100 mg/kg of INZ-701. In these studies, no systemic adverse effects or pathological effects were noted with INZ-701. We subsequently evaluated INZ-701 in two 28 days studies in non-human primates with doses of INZ-701 of 30 mg/kg given every other day. In these studies, there were no adverse events and the histology and clinical pathology were normal. Because both non-human primates and mice are relevant species, based on gene sequence homology and biologic activity, we conducted 28-day IND-enabling studies in both species. In these studies, there were no adverse events and we observed normal histopathology and clinical pathology. In addition, we conducted a central nervous system and respiratory risk study in mice. In this study, there were no adverse effects up to the highest dose tested of 30 mg/kg of INZ-701. Overall, in our nonclinical toxicology studies, INZ-701 exhibited a good safety profile and an acceptable therapeutic index.

Clinical Development Plans for ENPP1 Deficiency

We plan to file an IND with the FDA for INZ-701 in to allow us to initiate clinical development. Subject to our IND becoming effective, we plan to conduct a Phase 1/2 clinical trial of INZ-701 designed as an open-label, dose-escalation trial in adult patients with ENPP1 deficiency. We expect to enroll nine patients in this trial. The Phase 1/2 clinical trial will primarily investigate the safety and tolerability of INZ-701 and characterize its pharmacokinetic and pharmacodynamic profile, including plasma PPi levels, to establish a recommended dosing regimen. Secondary endpoints will include assessment of immunogenicity and other biochemical and physiological biomarkers associated with ENPP1 deficiency. We plan to collect data from patients that will help characterize physiological and clinical outcomes relevant to patients in a given stage of disease.

If a safe dose is identified for further development, we plan to conduct Phase 2/3 clinical trials of INZ-701 in adult, infant and pediatric patient populations with ENPP1 deficiency. We intend to design these Phase 2/3 clinical trials as pivotal trials for registrational purposes. Many companies pursuing marketing approval for enzyme replacement therapies in rare diseases have followed a similar clinical development strategy.

Prior to initiating these Phase 2/3 clinical trials, we plan to engage with the regulatory authorities in the United States, Europe and other jurisdictions to determine appropriate primary efficacy endpoints and other requirements for potential marketing approval. We anticipate that data from our Phase 1/2 clinical trial will provide background information useful in the design of our planned Phase 2/3 clinical trials. If successful, the Phase 1/2 clinical trial would allow us to obtain evidence of the mechanism of action of INZ-701 through restoration of plasma PPi levels. Our clinical strategy, subject to ongoing discussions with the regulatory authorities in the United States, Europe and other jurisdictions, is to pursue registration of INZ-701 for ENPP1 deficiency by linking the restoration of plasma PPi levels to measures of physiological and clinical efficacy in this patient population.

The FDA and EMA have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency.

Clinical Development Plans for ABCC6 Deficiency

We plan to file a CTA with the regulatory authorities in Europe for INZ-701 in to allow us to initiate clinical development. Subject to our CTA becoming effective, we plan to conduct a Phase 1/2 clinical trial of INZ-701 designed as an open-label, dose-escalation trial in adult patients with ABCC6 deficiency. We expect to enroll nine patients in this trial. The Phase 1/2 clinical trial will primarily investigate the safety and tolerability of INZ-701 and characterize its pharmacokinetic and pharmacodynamic profile, including plasma PPi levels, to establish a recommended dosing regimen. Secondary endpoints will include assessment of immunogenicity and other biochemical and physiological biomarkers associated with ABCC6 deficiency.

If a safe dose is identified for further development, we plan to conduct a Phase 2/3 clinical trial of INZ-701 in adults with ABCC6 deficiency. We intend to design this Phase 2/3 clinical trial as a pivotal trial for registrational purposes. Prior to initiating this Phase 2/3 clinical trial, we plan to engage with the regulatory authorities in the United States, Europe and other jurisdictions to determine appropriate primary efficacy endpoints and other requirements for potential marketing approval. We anticipate that data from our Phase 1/2 clinical trial will provide background information useful in the design of our planned Phase 2/3 clinical trial. If successful, the Phase 1/2 clinical trial would allow us to obtain evidence of the restoration of plasma PPi levels. Our clinical strategy, subject to ongoing discussions with the regulatory authorities in the United States, Europe and other jurisdictions, is to pursue registration of INZ-701 for ABCC6 deficiency by linking the restoration of plasma PPi levels to measures of physiological and clinical efficacy in this patient population.

Other Potential Indications for INZ-701

Based on its mechanism of action, we believe that INZ-701 has the potential to normalize plasma PPi levels and provide therapeutic benefit to patients beyond those with monogenic defects in the ENPP1 or ABCC6 gene.

We intend to explore the potential of INZ-701 as a therapy in other, non-genetic diseases of abnormal mineralization associated with low levels of PPi. Calciphylaxis, a manifestation of chronic kidney disease, is a non-genetic condition associated with vascular calcification and low PPi levels with a reported one-year survival rate of approximately 50%. The estimated incidence of calciphylaxis is at least 1,800 new patients per year in the United States. There are currently no approved therapies for calciphylaxis, although use of sodium thiosulfate, a chelating agent intended to lower calcium content in the blood, reportedly ameliorates symptoms. Patients are often also advised to maintain a low phosphate diet. We are collaborating with a major academic institution to confirm that PPi levels are low in patients with calciphylaxis and to investigate associated manifestations that may be treated with INZ-701.

Diseases of neointimal proliferation include diseases without a clear genetic basis. In preclinical studies, INZ-701 prevented neointimal proliferation in both wild-type and ENPP1-deficient mice, which we believe is attributable to increased levels of adenosine. We plan to continue to explore the potential of INZ-701 in non-genetic diseases in which arteries have been damaged or disrupted by insertion of a stent, bypass graft occlusion, transplant vasculopathy or inflammation known as arteritis.

ENPP1 Gene Therapy

We plan to continue to develop new and innovative therapies to treat ENPP1 and ABCC6 deficiencies. We believe we are well-positioned to do so because of our in depth knowledge of the biological pathways involved in mineralization and of diseases of abnormal mineralization. For example, we have identified gene therapy constructs in our enzyme replacement therapy program that have shown restoration and sustained enzyme activity leading to normalization of plasma PPi levels in preclinical experiments without adverse effects. Our results to date encourage us to continue to optimize our gene therapy constructs as a potential new modality to treat diseases of abnormal mineralization impacting the vasculature, soft tissue and skeleton, in furtherance of our mission to become leaders in the treatment of such diseases.

Manufacturing and Supply

While we have personnel with substantial manufacturing experience, we do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for the manufacture of both drug substance and finished drug product for INZ-701 and any future product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates receive marketing approval. We also rely on these third parties for packaging, labeling, sterilization, storage, distribution and other production logistics. We have only limited supply agreements in place with respect to our product candidates, and these arrangements do not extend to commercial supply. We obtain supplies of drug substance and finished drug product for INZ-701 on a purchase order basis. We do not have long term committed arrangements with respect to any of our product candidates or other materials.

Manufacturing biologics is complex, especially in large quantities. Biologic products must be made consistently and in compliance with a clearly defined manufacturing process. We have obtained from our third-party manufacturers a supply of INZ-701 that we believe is sufficient for our currently planned clinical trials of INZ-701 for ENPP1 and ABCC6 deficiencies. However, we are continuing the process of scaling up our manufacturing processes and capabilities with our third-party manufacturers to support longer term clinical development. In addition, if we receive marketing approval for any of our product candidates, we will need to establish an agreement for commercial manufacture with a third party. We do not currently have arrangements in

place for redundant supply or a second source for bulk drug substance. If any of our current contract manufacturers cannot perform as agreed, we may be required to replace such manufacturers. Although we believe that there are several potential alternative manufacturers who could manufacture our product candidates, we may incur added costs and delays in identifying and qualifying any such replacement or be unable to reach agreement with an alternative manufacturer.

Commercialization

We hold development and commercialization rights to our pipeline and programs, including INZ-701, on a worldwide basis. At this stage, we have not yet established our own commercial organization or distribution capabilities because our product candidates are still in preclinical development. We believe that we will be able to commercialize INZ-701, if approved, for ENPP1 or ABCC6 deficiency with a small, targeted, internal sales and commercial organization in the United States and other major markets. We may explore the use of a variety of types of collaboration, co-promotion, distribution and other marketing arrangements with one or more third parties to commercialize our product candidates in smaller markets outside the United States or for other situations in which a larger sales and marketing organization is required.

We intend to continue to engage with patient advocacy groups, medical centers of excellence and medical specialists in an effort to expeditiously bring our therapy to patients.

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, expertise, scientific knowledge and intellectual property provide us with competitive advantages, we face and will continue to face competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, governmental agencies and 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 existing therapies and new therapies that may become available in the future. Moreover, our industry is characterized by the existence of large numbers of patents and frequent allegations of patent infringement.

The key competitive factors affecting the success of our product candidates, if approved, are likely to be their efficacy, safety, convenience and price, the level of competition and the availability of coverage and adequate reimbursement from third-party payors. If any of our product candidates are approved and successfully commercialized, it is likely that we will face increased competition as a result of other companies pursuing development of products to address similar diseases.

There are currently no approved therapies for the treatment of ENPP1 or ABCC6 deficiencies. Currently available treatments are only palliative, seeking to minimize the symptoms of these diseases. Although a number of companies generally are pursuing development of different enzyme replacement therapies or treatments for vascular calcification disorders and many other companies are focused on rare disease markets, we are not aware of any product candidate currently in clinical development for ENPP1 or ABCC6 deficiencies. SNF472, a calcification inhibitor, is currently in Phase 3 clinical development for calciphylaxis by Sanifit, and Inositec has product candidates in preclinical development for calcification inhibitors.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. 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. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties 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.

We may pursue the in-license or acquisition of rights to complementary technologies and product candidates on an opportunistic basis. The acquisition and licensing of technologies and product candidates is a competitive area, and a number of more established companies also have similar strategies to in-license or acquire technologies and product candidates that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater 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 in-license or acquire the relevant technology or product candidate on terms that would allow us to make an appropriate return on our investment.

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 may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. Because of our primary focus on rare diseases, if our product candidates achieve marketing approval, we expect to seek premium pricing.

Yale University License Agreement

In January 2017, we entered into a license agreement with Yale, which was amended in May 2020, pursuant to which Yale granted us (1) an exclusive, worldwide license, with specified rights to sublicense, under Yale's interest in specified intellectual property rights and materials for specified therapeutic and prophylactic products, (2) a nonexclusive, worldwide license under Yale's interest in the same intellectual property rights and materials for specified diagnostic products, and (3) a nonexclusive, worldwide license under Yale's interest in specified know-how for specified products, in each case that use any ectonucleotide pyrophosphatase/phosphodiesterase enzymes, or ENPPs, or an agonist or antagonist of ENPP, its receptors, substrates, or ENPP enzymatic products, subject to certain exceptions. These licensed intellectual property rights, materials and know-how arose, and may in the future continue to arise, primarily from research conducted by Dr. Demetrios Braddock and members of his laboratory at Yale. During the period in which Professor Braddock serves as a member of our scientific advisory board or has another arrangement with us pursuant to which he provides regular advice to us or has an active consulting arrangement with us, and so long as he is an employee or faculty member (including emeritus faculty member) at Yale, Yale is restricted from granting any third party any rights for any therapeutic or prophylactic uses for any ENPP technology made, created, developed, discovered, conceived or first reduced to practice by or on behalf of Professor Braddock or his laboratory. Under the license agreement, we are obligated to use commercially reasonable efforts to pursue development and commercialization of specified ENPP products and licensed methods.

Pursuant to the license agreement, as partial upfront consideration, we paid to Yale approximately $60,000, which amount reflected unreimbursed patent expenses incurred by Yale prior to the date of the license agreement. We are responsible for paying Yale an annual license maintenance fee in varying amounts throughout the term ranging from the low tens of thousands of dollars to the high tens of thousands of dollars. As of December 31, 2019, we have incurred a total of $30,000 in license maintenance fees to Yale. We are required to pay Yale $3.0 million, based on the achievement of a specified net product sales milestone or specified

development and commercialization milestones, for each therapeutic and prophylactic licensed product developed. We are required to pay Yale an amount in the several hundreds of thousands of dollars, based on the achievement of a specified net product sales milestone or specified development and commercialization milestones, for each diagnostic licensed product developed. While the agreement remains in effect, we are required to pay Yale low single-digit percentage royalties on aggregate worldwide net sales of certain licensed products, which may be subject to reductions. Yale is guaranteed a minimum royalty payment amount (ranging in dollar amounts from the mid six figures to low seven figures) for each year after the first sale of a therapeutic or prophylactic licensed product that results in net sales. Yale is guaranteed a minimum royalty payment amount (ranging from the low tens of thousands of dollars to the mid tens of thousands of dollars) for each year after the first sale of a diagnostic licensed product that results in net sales. Such minimum royalty payment amounts are summed for each year after the first sale of both a therapeutic or prophylactic licensed product and a diagnostic licensed product has occurred. We must also pay Yale a double-digit percentage of certain types of income we receive from sublicensees. We are also responsible for costs relating to the prosecution and maintenance of the licensed patents. Finally, subject to certain conditions, all payments due by us to Yale will be tripled following any patent challenge or challenge to a claim by Yale that a product is a licensed product under the agreement made by us against Yale if Yale prevails in such challenge.

We have also agreed to pay for ENPP research support from Yale pursuant to a sponsored research agreement that we entered into with Yale in January 2017 and amended in February 2019. Under the sponsored research agreement, as amended, we agreed to pay Yale an aggregate of $2.4 million over five years, ending in the fourth quarter of 2021, and as of March 31, 2020, we had paid Yale an aggregate of approximately $1.7 million. The research is performed by and under the supervision and direction of Professor Braddock for so long as he is employed by Yale.

The license agreement remains in effect until the latest of, on a country-by-country basis, (a) the date on which the last claim of the licensed patents in such country expires; (b) 10 years after the last licensed know-how, licensed materials or licensed methods have been provided to us by Yale; and (c) 10 years after the first sale of a specified ENPP product; but in no event later than the date that is 30 years after the effective date of the agreement. We may terminate the agreement for Yale's uncured material breach of the agreement, we may terminate the agreement for convenience upon six months' prior notice, and Yale may terminate the agreement for our uncured material breach of certain provisions or if we fail to make a payment when due, fail to obtain or maintain adequate insurance coverage or fail to engage in specified development and regulatory activities. For example, Yale would have the right to terminate the license agreement if we do not file an IND for INZ-701 with the FDA on or before December 31, 2020. The agreement will automatically terminate if we become insolvent or the subject of a bankruptcy event. Upon termination for any reason other than Yale's breach of the agreement, in certain circumstances, Yale is permitted to use all regulatory approvals of, or clinical trials or other studies conducted by or on behalf of us on, and all filings made by or on behalf of us with regulatory agencies with respect to, certain licensed technology.

Intellectual Property

We strive to protect and enhance the proprietary technology, inventions and improvements that are commercially important to the development of our business, including by seeking, maintaining and defending patent rights, whether developed internally or licensed from third parties. We also rely on trade secrets, know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen and maintain our proprietary position in our field. Additionally, we intend to rely on regulatory protection afforded through rare drug designations, data exclusivity and market exclusivity as well as patent term extensions, where available.

Our future commercial success depends, in part, on our ability to: obtain, maintain and enforce patent and other proprietary protection in the United States and other countries for commercially important technology, inventions and know-how related to our business; defend and enforce in our intellectual property rights, in particular our patents rights; preserve the confidentiality of our trade secrets; and operate without infringing,

misappropriating or violating the valid and enforceable patents and proprietary rights of third parties. Our ability to stop third parties from making, using, selling, offering to sell or importing our products may depend on the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities.

The patent positions of pharmaceutical and biotechnology companies like ours are generally uncertain and can involve complex legal, scientific and factual issues. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. We also cannot ensure that patents will issue with respect to any patent applications that we or our licensors may file in the future, nor can we ensure that any of our owned or licensed patents or future patents will be commercially useful in protecting our product candidates and methods of manufacturing the same. In addition, the coverage claimed in a patent application may be significantly reduced before a patent is issued, and its scope can be reinterpreted and even challenged after issuance. As a result, we cannot guarantee that any of our products will be protected or remain protectable by enforceable patents. Moreover, any patents that we hold may be challenged, circumvented or invalidated by third parties. See “Risk Factors—Risks Related to Our Intellectual Property” for a more comprehensive description of risks related to our intellectual property.

We generally file patent applications directed to our key programs in an effort to secure our intellectual property positions with respect to these programs. As of April 15, 2020, we owned or possessed exclusive rights to approximately 11 issued U.S. patents, one allowed U.S. application, seven U.S. pending non-provisional patent applications, 28 foreign pending patent applications, and three pending Patent Cooperation Treaty applications. In addition, as of April 15, 2020, we owned approximately two pending U.S. trademark applications, one pending foreign trademark application and one foreign registered trademark application.

INZ-701

The intellectual property portfolio for INZ-701, our most advanced program, as of April 15, 2020, is summarized below. Prosecution is a lengthy process, during which the scope of the claims initially submitted for examination by the U.S. Patent and Trademark Office may be significantly narrowed before issuance, if issued at all. We expect this may be the case with respect to some of our pending patent applications referred to below.

Currently, our patent protection includes patents and patent applications that we have exclusively licensed under our license agreement with Yale. This licensed patent portfolio includes:

- A patent family that includes five issued U.S. patents and one allowed U.S. application relating to: (1) reducing and/or preventing progression of pathological calcification, (2) reducing or preventing ectopic calcification of soft tissue, (3) reducing or preventing pathological ossification, (4) treating, reversing or preventing progression of ossification of the posterior longitudinal ligament, (5) treating aging-related hardening of arteries; and (6) reducing or preventing progression of chronic kidney disease, end-stage renal disease, calcific uremic arteriolopathy, and calciphylaxis, and a pending patent application relating to ameliorating vascular calcification in a human subject having a genetic defect that affects the function, activity and/or expression of the ENPP1 polypeptide. All such methods of treatment involve administration of soluble ENPP1 that lacks a bone targeting domain. These U.S. patents and pending applications that mature to patents are expected to expire in 2034, absent any term adjustments or extensions. Corresponding foreign applications have been filed and are pending in Europe, Japan, and Hong Kong.

- A patent family that includes an issued U.S. patent covering certain compositions that contain ENPP1, including INZ-701. This U.S. patent is expected to expire in 2036, absent any term adjustments or extensions. Corresponding foreign applications have been filed and are pending in Europe, Japan, Australia, Canada, Brazil, India, Hong Kong, South Korea, Mexico, New Zealand, and Russia.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application.

In the United States, the term of a patent covering an FDA-approved drug may, in certain cases, be eligible for a patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984 as compensation for the loss of patent term during the FDA regulatory review process. The period of extension may be up to five years, but cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Only one patent among those eligible for an extension and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and in certain other jurisdictions to extend the term of a patent that covers an approved drug. It is possible that issued U.S. patents covering the use of INZ-701 and products from our intellectual property may be entitled to patent term extensions. If our use of product candidates or the product candidate itself receive FDA approval, we intend to apply for patent term extensions, if available, to extend the term of patents that cover the approved use or product candidate. We also intend to seek patent term extensions in any jurisdictions where available, however, there is no guarantee that the applicable authorities, including the FDA, will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions.

In addition to patent protection, we rely upon unpatented trade secrets and confidential know-how and continuing technological innovation to develop and maintain our competitive position. However, trade secrets and confidential know-how are difficult to protect. We seek to protect our proprietary information, in part, using confidentiality agreements with any collaborators, scientific advisors, employees and consultants and invention assignment agreements with our employees. We also have agreements requiring assignment of inventions with selected consultants, scientific advisors and collaborators. These agreements may not provide meaningful protection. These agreements may also be breached, and we may not have an adequate remedy for any such breach. In addition, our trade secrets and 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. 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. See “Risk Factors—Risks Related to our Intellectual Property” for a more comprehensive description of risks related to our intellectual property.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, testing, manufacture, pricing, reimbursement, sales, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products, including biological products. The processes for obtaining marketing approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

Licensure and Regulation of Biologics in the United States

In the United States, our product candidates would be regulated as biological products, or biologics, under the Public Health Service Act, or PHSA, and the Federal Food, Drug and Cosmetic Act, or FDCA, and its implementing regulations and guidances. The failure to comply with the applicable U.S. requirements at any time during the product development process, including preclinical testing, clinical testing, the approval process, or post-approval process, may subject an applicant to delays in the conduct of the study, regulatory review, and

approval, and/or administrative or judicial sanctions. These sanctions may include, but are not limited to, the FDA's refusal to allow an applicant to proceed with clinical testing, refusal to approve pending applications, license suspension, or revocation, withdrawal of an approval, warning letters, adverse publicity, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, and civil or criminal investigations, and penalties brought by the FDA or the Department of Justice, or DOJ, and other governmental entities, including state agencies.

An applicant seeking approval to market and distribute a new biologic in the United States generally must satisfactorily complete each of the following steps:

- preclinical laboratory tests, animal studies, and formulation studies all performed in accordance with the FDA's Good Laboratory Practices, or GLP, regulations;
- 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 IND application for human clinical testing, which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials to establish the safety, potency, and purity of the product candidate for each proposed indication, in accordance with current Good Clinical Practices, or GCP;
- preparation and submission to the FDA of a biologics license application, or BLA, for a biologic product requesting marketing for one or more proposed indications, including submission of detailed information on the manufacture and composition of the product in clinical development and proposed labelling;
- review of the product by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities, including those of third parties, at which the product, or components thereof, are produced to assess compliance with cGMP requirements and to assure that the facilities, methods, and controls are adequate to preserve the product's identity, strength, quality, and purity;
- satisfactory completion of any FDA audits of the preclinical studies and clinical trial sites to assure compliance with GLP, as applicable, and GCP, and the integrity of clinical data in support of the BLA;
- payment of user Prescription Drug User Free Act, or PDUFA, securing FDA approval of the BLA and licensure of the new biologic product; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and any post-approval studies or other post-marketing commitments required by the FDA.

Preclinical Studies and Investigational New Drug Application

Before testing any biologic product candidate in humans, the product candidate must undergo preclinical testing. Preclinical tests include laboratory evaluations of product chemistry, formulation and stability, as well as studies to evaluate the potential for efficacy and toxicity in animal studies. The conduct of the preclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND application.

An IND is an exemption from the FDCA that allows an unapproved product candidate to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer such investigational product to humans. The IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about the product or conduct of the proposed clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In that case, the IND sponsor and the FDA must resolve any outstanding FDA concerns before the clinical trials can begin or recommence.

As a result, submission of the IND may result in the FDA not allowing the trials to commence or allowing the trial to commence on the terms originally specified by the sponsor in the IND. If the FDA raises concerns or questions either during this initial 30-day period, or at any time during the IND process, it may choose to impose a partial or complete clinical hold. Clinical holds are imposed by the FDA whenever there is concern for patient safety and may be a result of new data, findings, or developments in clinical, preclinical, and/or chemistry, manufacturing, and controls. This order issued by the FDA would delay either a proposed clinical trial or cause suspension of an ongoing trial, until all outstanding concerns have been adequately addressed and the FDA has notified the company that investigations may proceed. This could cause significant delays or difficulties in completing our planned clinical trial or future clinical trials in a timely manner.

Expanded Access to an Investigational Drug for Treatment Use

Expanded access, sometimes called “compassionate use,” is the use of investigational products outside of clinical trials to treat patients with serious or immediately life-threatening diseases or conditions when there are no comparable or satisfactory alternative treatment options. The rules and regulations related to expanded access are intended to improve access to investigational products for patients who may benefit from investigational therapies. FDA regulations allow access to investigational products under an IND by the company or the treating physician for treatment purposes on a case-by-case basis for: individual patients (single-patient IND applications for treatment in emergency settings and non-emergency settings); intermediate-size patient populations; and larger populations for use of the investigational product under a treatment protocol or treatment IND application.

When considering an IND application for expanded access to an investigational product with the purpose of treating a patient or a group of patients, the sponsor and treating physicians or investigators will determine suitability when all of the following criteria apply: patient(s) have a serious or immediately life-threatening disease or condition, and there is no comparable or satisfactory alternative therapy to diagnose, monitor, or treat the disease or condition; the potential patient benefit justifies the potential risks of the treatment and the potential risks are not unreasonable in the context or condition to be treated; and the expanded use of the investigational drug for the requested treatment will not interfere initiation, conduct, or completion of clinical investigations that could support marketing approval of the product or otherwise compromise the potential development of the product.

There is no obligation for a sponsor to make its drug products available for expanded access; however, as required by the 21st Century Cures Act, or Cures Act, passed in 2016, if a sponsor has a policy regarding how it responds to expanded access requests, it must make that policy publicly available. Although these requirements

were rolled out over time, they have now come into full effect. This provision requires drug and biologic companies to make publicly available their policies for expanded access for individual patient access to products intended for serious diseases. Sponsors are required to make such policies publicly available upon the earlier of initiation of a Phase 2 or Phase 3 trial; or 15 days after the investigational drug or biologic receives designation as a breakthrough therapy, fast track product, or regenerative medicine advanced therapy.

In addition, 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 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 manufacturer to make its investigational products available to eligible patients as a result of the Right to Try Act.

Human Clinical Trials in Support of a BLA

Clinical trials involve the administration of the investigational product candidate to healthy volunteers or patients with the disease or condition to be treated under the supervision of a qualified principal investigator in accordance with GCP requirements. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, inclusion and exclusion criteria, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND.

A sponsor who wishes to conduct a clinical trial outside the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all FDA IND requirements must be met unless waived. When a foreign clinical trial is not conducted under an IND, the sponsor must ensure that the trial complies with certain regulatory requirements of the FDA in order to use the trial as support for an IND or application for marketing approval. Specifically, the FDA requires that such trials be conducted in accordance with GCP, including review and approval by an independent ethics committee and informed consent from participants. The GCP requirements encompass both ethical and data integrity standards for clinical trials. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign trials are conducted in a manner comparable to that required for clinical trials in the United States.

Further, each clinical trial must be reviewed and approved by an IRB either centrally or individually at each institution at which the clinical trial will be conducted. The IRB will consider, among other things, clinical trial design, patient informed consent, ethical factors, the safety of human subjects, and the possible liability of the institution. An IRB must operate in compliance with FDA regulations. The FDA, IRB, or the clinical trial sponsor may suspend or discontinue a clinical trial at any time for various reasons, including a finding that the clinical trial is not being conducted in accordance with FDA requirements or that the participants are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive GCP rules and the requirements for informed consent.

Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board, or DSMB. This group may recommend continuation of the trial as planned, changes in trial conduct, or cessation of the trial at designated check points based on certain available data from the trial to which only the DSMB has access. Finally, research activities involving infectious agents, hazardous chemicals, recombinant DNA, and genetically altered organisms and agents may be subject to review and approval of an Institutional Biosafety Committee, or IBC, in accordance with NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Additional studies may be required after approval.

- *Phase 1* clinical trials are initially conducted in a limited population to test the product candidate for safety, including adverse effects, dose tolerance, absorption, metabolism, distribution, excretion, and pharmacodynamics in healthy humans or, on occasion, in patients, such as cancer patients.

- *Phase 2* clinical trials are generally conducted in a limited patient population to identify possible adverse effects and safety risks, evaluate the efficacy of the product candidate for specific targeted indications and determine dose tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more costly Phase 3 clinical trials.

- *Phase 3* clinical trials proceed if the Phase 2 clinical trials demonstrate that a dose range of the product candidate is potentially effective and has an acceptable safety profile. Phase 3 clinical trials are undertaken within an expanded patient population to further evaluate dosage, provide substantial evidence of clinical efficacy, and further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites. A well-controlled, statistically robust Phase 3 trial may be designed to deliver the data that regulatory authorities will use to decide whether or not to approve, and, if approved, how to appropriately label a biologic; such Phase 3 studies are referred to as “pivotal.”

In some cases, the FDA may approve a BLA for a product but require the sponsor to conduct additional clinical trials to further assess the product’s safety and effectiveness after approval. Such post-approval trials are typically referred to as Phase 4 clinical trials. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit in the case of biologics approved under accelerated approval regulations. If the FDA approves a product while a company has ongoing clinical trials that were not necessary for approval, a company may be able to use the data from these clinical trials to meet all or part of any Phase 4 clinical trial requirement or to request a change in the product labeling. The failure to exercise due diligence with regard to conducting Phase 4 clinical trials could result in withdrawal of approval for products.

Under the Pediatric Research Equity Act of 2003, a BLA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the product 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. Sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests, and other information required by regulation. The applicant, the FDA, and the FDA’s internal review committee must then review the information submitted, consult with each other, and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

For products intended to treat a serious or life-threatening disease or condition, the FDA must, upon the request of an applicant, meet to discuss preparation of the initial pediatric study plan or to discuss deferral or waiver of pediatric assessments. In addition, FDA will meet early in the development process to discuss pediatric study plans with sponsors and FDA must meet with sponsors by no later than the end-of-phase 1 meeting for serious or life-threatening diseases and by no later than 90 days after FDA’s receipt of the study plan.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in the Food and Drug Administration Safety and Innovation Act, or the

FDASIA. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

Information about applicable clinical trials must be submitted within specific timeframes to the NIH for public dissemination on its ClinicalTrials.gov website.

Compliance with cGMP Requirements

Before approving a 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 full compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The PHSA emphasizes the importance of manufacturing control for products like biologics whose attributes cannot be precisely defined.

Manufacturers and others involved in the manufacture and distribution of products must also register their establishments with the FDA and certain state agencies. Both domestic and foreign manufacturing establishments must register and provide additional information to the FDA upon their initial participation in the manufacturing process. Any product manufactured by or imported from a facility that has not registered, whether foreign or domestic, is deemed misbranded under the FDCA. Establishments may be subject to periodic unannounced inspections by government authorities to ensure compliance with cGMPs and other laws. Inspections must follow a “risk-based schedule” that may result in certain establishments being inspected more frequently. Manufacturers may also have to provide, on request, electronic or physical records regarding their establishments. Delaying, denying, limiting, or refusing inspection by the FDA may lead to a product being deemed to be adulterated.

Review and Approval of a BLA

The results of product candidate development, preclinical testing, and clinical trials, including negative or ambiguous results as well as positive findings, are submitted to the FDA as part of a BLA requesting license to market the product. The BLA must contain extensive manufacturing information and detailed information on the composition of the product and proposed labeling as well as payment of a user fee. Under federal law, the submission of most BLAs is subject to an application user fee, which for federal fiscal year 2020 is $2,942,965 for an application requiring clinical data. The sponsor of a licensed BLA is also subject to an annual program fee, which for fiscal year 2020 is $325,424. Certain exceptions and waivers are available for some of these fees, such as an exception from the application fee for products with orphan designation and a waiver for certain small businesses.

The FDA has 60 days after submission of the application to conduct an initial review to determine whether it is sufficient to accept for filing based on the agency’s threshold determination that it is sufficiently complete to permit substantive review. Once the submission has been accepted for filing, the FDA begins an in-depth review of the application. Under the goals and policies agreed to by the FDA under the PDUFA, the FDA has ten months in which to complete its initial review of a standard application and respond to the applicant, and six months for a priority review of the application. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs. The review process may often be significantly extended by FDA requests for additional information or clarification. The review process and the PDUFA goal date may be extended by three months if the FDA requests or if the applicant otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Under the PHSA, the FDA may approve a BLA if it determines that the product is safe, pure, and potent, and the facility where the product will be manufactured meets standards designed to ensure that it continues to be safe, pure, and potent. On the basis of the FDA’s evaluation of the application and accompanying

information, including the results of the inspection of the manufacturing facilities and any FDA audits of preclinical and clinical trial sites to assure compliance with GCPs, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. If the application is not approved, the FDA will issue a complete response letter, which will contain the conditions that must be met in order to secure final approval of the application, and when possible will outline recommended actions the sponsor might take to obtain approval of the application. Sponsors that receive a complete response letter may submit to the FDA information that represents a complete response to the issues identified by the FDA. Such resubmissions are classified under PDUFA as either Class 1 or Class 2. The classification of a resubmission is based on the information submitted by an applicant in response to an action letter. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has two months to review a Class 1 resubmission and six months to review a Class 2 resubmission. The FDA will not approve an application until issues identified in the complete response letter have been addressed.

The FDA may also refer the application to an advisory committee for review, evaluation, and recommendation as to whether the application should be approved. In particular, the FDA may refer applications for novel biologic products or biologic products that present difficult questions of safety or efficacy to an advisory committee. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that 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.

If the FDA approves a new product, it may limit the approved indication(s) for use of the product. It may also require that contraindications, warnings, or precautions be included in the product labeling. In addition, the FDA may call for post-approval studies, including Phase 4 clinical trials, to further assess the product's efficacy and/or safety after approval. The agency may also require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, to help ensure that the benefits of the product outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patent registries. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many 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.

Fast Track, Breakthrough Therapy, Priority Review and Regenerative Medicine Advanced Therapy Designations

The FDA is authorized to designate certain products for expedited review if they are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs are referred to as fast track designation, breakthrough therapy designation, priority review designation, and regenerative medicine advanced therapy designation.

Specifically, the FDA may designate a product for fast track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For fast track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a fast track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a fast track product may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a fast track application does not begin until the last section of the application is

submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Second, in 2012, Congress enacted the FDASIA. This law established a new regulatory scheme allowing for expedited review of products designated as "breakthrough therapies." A product may be designated as a breakthrough therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The FDA may take certain actions with respect to breakthrough therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff in the review process; assigning a cross-disciplinary project lead for the review team; and taking other steps to design the clinical trials in an efficient manner. This designation also holds the potential for priority review of the investigational product.

Third, the FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA determines, on a case-by-case basis, whether the proposed product represents a significant improvement when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting product reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. A priority designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months.

With passage of the Cures Act in December 2016, Congress authorized the FDA to accelerate review and approval of products designated as regenerative medicine advanced therapies. A product is eligible for this designation if it is a regenerative medicine therapy that is intended to treat, modify, reverse or cure a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product has the potential to address unmet medical needs for such disease or condition. In a recent guidance on expedited programs for regenerative medicine therapies for serious conditions, FDA specified that its interpretation of the definition of regenerative medicine advanced therapy products includes gene therapies that lead to a sustained effect on cells or tissues, such as *in vivo* AAV vectors delivered to non-dividing cells. The benefits of a regenerative medicine advanced therapy designation include early interactions with FDA to expedite development and review, benefits available to breakthrough therapies, potential eligibility for priority review, and accelerated approval based on surrogate or intermediate endpoints.

Accelerated Approval Pathway

The FDA may grant accelerated approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM, and that is reasonably likely to predict an effect on IMM or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly

than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a product, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints, but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a product.

The accelerated approval pathway is most often used in settings in which the course of a disease is long and an extended period of time is required to measure the intended clinical benefit of a product, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. Thus, accelerated approval has been used extensively in the development and approval of products for treatment of a variety of cancers in which the goal of therapy is generally to improve survival or decrease morbidity and the duration of the typical disease course requires lengthy and sometimes large trials to demonstrate a clinical or survival benefit.

The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the product's clinical benefit. As a result, a product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to withdraw the product from the market on an expedited basis. All promotional materials for product candidates approved under accelerated regulations are subject to prior review by the FDA.

Post-Approval Regulation

If regulatory approval for marketing of a product or new indication for an existing product is obtained, the sponsor will be required to comply with all regular post-approval regulatory requirements as well as any post-approval requirements that the FDA have imposed as part of the approval process. The sponsor will be required to report certain adverse reactions and production problems to the FDA, provide updated safety and efficacy information and comply with requirements concerning advertising and promotional labeling requirements. Manufacturers and certain of their subcontractors 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 cGMP regulations, which impose certain procedural and documentation requirements upon manufacturers. Accordingly, the sponsor and its third-party manufacturers must continue to expend time, money, and effort in the areas of production and quality control to maintain compliance with cGMP regulations and other regulatory requirements.

A product may also be subject to official lot release, meaning that the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official lot release, the manufacturer must submit samples of each lot, together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot, to the FDA. The FDA may in addition perform certain confirmatory tests on lots of some products before releasing the lots for distribution. Finally, the FDA will conduct laboratory research related to the safety, purity, potency, and effectiveness of pharmaceutical products.

Once an approval is granted, the FDA may withdraw the approval 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; imposition of post-market studies or clinical

trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. 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;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

Pharmaceutical products may be promoted only for the approved indications and in accordance with the provisions of the approved label. Although healthcare providers may prescribe products for off-label uses in their professional judgment, drug manufacturers are prohibited from soliciting, encouraging or promoting unapproved uses of a product. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

The FDA strictly regulates the marketing, labeling, advertising, and promotion of prescription drug products placed on the market. This regulation includes, among other things, standards and regulations for direct-to-consumer advertising, communications regarding unapproved uses, industry-sponsored scientific and educational activities, and promotional activities involving the Internet and social media. Promotional claims about a drug's safety or effectiveness are prohibited before the drug is approved. After approval, a drug product generally may not be promoted for uses that are not approved by the FDA, as reflected in the product's prescribing information. In the United States, healthcare professionals are generally permitted to prescribe drugs for such uses not described in the drug's labeling, known as off-label uses, because the FDA does not regulate the practice of medicine. However, FDA regulations impose rigorous restrictions on manufacturers' communications, prohibiting the promotion of off-label uses. It may be permissible, under very specific, narrow conditions, for a manufacturer to engage in nonpromotional, non-misleading communication regarding off-label information, such as distributing scientific or medical journal information.

If a company is found to have promoted off-label uses, it may become subject to adverse public relations and administrative and judicial enforcement by the FDA, the DOJ, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes drug products. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

Orphan Drug Designation

Orphan drug designation in the United States is designed to encourage sponsors to develop products intended for rare diseases or conditions. In the United States, a rare disease or condition is statutorily defined as a condition that affects fewer than 200,000 individuals in the United States or that affects more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available the biologic for the disease or condition will be recovered from sales of the product in the United States.

Orphan drug designation qualifies a company for tax credits and market exclusivity for seven years following the date of the product's marketing approval if granted by the FDA. An application for designation as an orphan product can be made any time prior to the filing of an application for approval to market the product. A product becomes an orphan when it receives orphan drug designation from the Office of Orphan Products Development at the FDA based on acceptable confidential requests made under the regulatory provisions. The product must then go through the review and approval process like any other product.

A sponsor may request orphan drug designation of a previously unapproved product or new orphan indication for an already marketed product. In addition, a sponsor of a product that is otherwise the same product as an already approved orphan drug may seek and obtain orphan drug designation for the subsequent product for the same rare disease or condition if it can present a plausible hypothesis that its product may be clinically superior to the first drug. More than one sponsor may receive orphan drug designation for the same product for the same rare disease or condition, but each sponsor seeking orphan drug designation must file a complete request for designation.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same product for the same indication for seven years, except in certain limited circumstances. If a product designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity.

The period of exclusivity begins on the date that the marketing application is approved by the FDA and applies only to the indication for which the product has been designated. The FDA may approve a second application for the same product for a different use or a second application for a clinically superior version of the product for the same use. The FDA cannot, however, approve the same product made by another manufacturer for the same indication during the market exclusivity period unless it has the consent of the sponsor or the sponsor is unable to provide sufficient quantities.

The FDA and EMA have granted orphan drug designation to INZ-701 for the treatment of ENPP1 deficiency. Although we have applied for orphan drug designation from the FDA for INZ-701 for ABCC6 deficiency, our initial application was not granted, though we have received an extension of time to submit an amendment to our application.

Pediatric Exclusivity

Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including the non-patent and orphan exclusivity. This six-month exclusivity may be granted if a BLA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity that cover the product are extended by six months.

Biosimilars and Exclusivity

The 2010 Patient Protection and Affordable Care Act, which was signed into law in March 2010, included a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA. The BPCIA established a regulatory scheme authorizing the FDA to approve biosimilars and interchangeable biosimilars. A biosimilar is a biological product that is highly similar to an existing FDA-licensed "reference product." As of

January 1, 2020, the FDA has approved 26 biosimilar products for use in the United States. No interchangeable biosimilars, however, have been approved. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars. Additional guidances are expected to be finalized by the FDA in the near term.

Under the BPCIA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." In order for the FDA to approve a biosimilar product, it must find that there are no clinically meaningful differences between the reference product and proposed biosimilar product in terms of safety, purity, and potency. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product, and (for products administered multiple times) that the biologic and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date of approval of the reference product. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such 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 their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law. Since the passage of the BPCIA, many states have passed laws or amendments to laws, including laws governing pharmacy practices, which are state-regulated, to regulate the use of biosimilars.

Federal and State Data Privacy and Security Laws

Under the federal Health Insurance Portability and Accountability Act of 1966, or HIPAA, the U.S. Department of Health and Human Services has issued regulations to protect the privacy and security of protected health information used or disclosed by covered entities including certain healthcare providers, health plans, and healthcare clearinghouses. HIPAA also regulates standardization of data content, codes, and formats used in healthcare transactions and standardization of identifiers for health plans and providers. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their regulations, including the omnibus final rule published on January 25, 2013, also imposes certain obligations on the business associates of covered entities that obtain protected health information in providing services to or on behalf of covered entities. In addition to federal privacy regulations, there are a number of state laws governing confidentiality and security of health information that are applicable to our business. In addition to possible federal civil and criminal penalties for HIPAA violations, state attorneys general are authorized to file civil actions for damages or injunctions in federal courts to enforce HIPAA and seek attorney's fees and costs associated with pursuing federal civil actions. Accordingly, state attorneys general (along with private plaintiffs) have brought civil actions seeking injunctions and damages resulting from alleged violations of HIPAA's privacy and security rules. New laws and regulations governing privacy and security may be adopted in the future as well.

Additionally, California recently enacted legislation that has been dubbed the first "GDPR-like" law in the United States. Known as the California Consumer Privacy Act, or CCPA, it creates new individual privacy rights for consumers (as that word is broadly defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA went into effect on January 1, 2020 and requires covered companies to provide new disclosures to California consumers, provide such consumers new ways to opt-out of certain sales of personal information, and allow for a new cause of action

for data breaches. The CCPA could impact our business activities depending on how it is interpreted and exemplifies the vulnerability of our business to not only cyber threats but also the evolving regulatory environment related to personal data and protected health information.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that some of our current or future business activities, including certain clinical research, sales, and marketing practices and the provision of certain items and services to our customers, could be subject to challenge under one or more of such privacy and data security laws. The heightening compliance environment and the need to build and maintain robust and secure systems to comply with different privacy compliance and/or reporting requirements in multiple jurisdictions could increase the possibility that a healthcare company may fail to comply fully with one or more of these requirements. If our operations are found to be in violation of any of the privacy or data security laws or regulations described above that are applicable to us, or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal, civil, and administrative penalties, damages, fines, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements, and/or oversight if we become subject to a consent decree or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our product candidates, once approved, are sold in a foreign country, we may be subject to similar foreign laws.

Patent Term Restoration and Extension

In the United States, a patent claiming a new biologic product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent extension of up to five years for patent term lost during product development and FDA regulatory review. Assuming grant of the patent for which the extension is sought, the restoration period for a patent covering a product is typically one-half the time between the effective date of the investigational new drug application, or IND, involving human beings and the submission date of the BLA, plus the time between the submission date of the BLA and the ultimate approval date. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The USPTO reviews and approves the application for any patent term extension in consultation with the FDA.

FDA Approval of Companion Diagnostics

In August 2014, the FDA issued final guidance clarifying the requirements that will apply to approval of therapeutic products and *in vitro* companion diagnostics. According to the guidance, for novel drugs, a companion diagnostic device and its corresponding therapeutic should be approved or cleared contemporaneously by the FDA for the use indicated in the therapeutic product's labeling. Approval or clearance of the companion diagnostic device will ensure that the device has been adequately evaluated and has adequate performance characteristics in the intended population. In July 2016, the FDA issued a draft guidance intended to assist sponsors of the drug therapeutic and in vitro companion diagnostic device on issues related to co-development of the products.

Under the FDCA, *in vitro* diagnostics, including companion diagnostics, are regulated as medical devices. In the United States, the FDCA 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 applies, diagnostic tests require marketing clearance or approval from the FDA prior to commercial distribution.

The FDA previously has required *in vitro* companion diagnostics intended to select the patients who will respond to the product candidate to obtain pre-market approval, or PMA, simultaneously with approval of the therapeutic product candidate. The PMA process, including the gathering of clinical and preclinical data and the submission to and review by the FDA, can take several years or longer. It involves a rigorous premarket review during which the applicant must prepare and provide the FDA with reasonable assurance of the device's safety and effectiveness and information about the device and its components regarding, among other things, device design, manufacturing and labeling. PMA applications are subject to an application fee. For federal fiscal year 2020, the standard fee is $340,995 and the small business fee is $85,249.

Regulation and Procedures Governing Approval of Medicinal Products in the European Union

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety, and efficacy, and governing, among other things, clinical trials, marketing authorization, commercial sales, and distribution of products. Whether or not it obtains FDA approval for a product, an applicant will need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions. Specifically, the process governing approval of medicinal products in the European Union generally follows the same lines as in the United States. It entails satisfactory completion of preclinical studies and adequate and well-controlled clinical trials to establish the safety and efficacy of the product for each proposed indication. It also requires the submission to the relevant competent authorities of a marketing authorization application, or MAA, and granting of a marketing authorization by these authorities before the product can be marketed and sold in the European Union.

Clinical Trial Approval

Pursuant to the currently applicable Clinical Trials Directive 2001/20/EC and the Directive 2005/28/EC on GCP, a system for the approval of clinical trials in the European Union has been implemented through national legislation of the member states. Under this system, an applicant must obtain approval from the competent national authority of a European Union member state in which the clinical trial is to be conducted, or in multiple member states if the clinical trial is to be conducted in a number of member states. Furthermore, the applicant may only start a clinical trial at a specific site after the competent ethics committee has issued a favorable opinion. The clinical trial application must be accompanied by an investigational medicinal product dossier with supporting information prescribed by Directive 2001/20/EC and Directive 2005/28/EC and corresponding national laws of the member states and further detailed in applicable guidance documents.

In April 2014, the European Union adopted a new Clinical Trials Regulation (EU) No 536/2014, but it has not yet become effective. It will overhaul the current system of approvals for clinical trials in the European Union. Specifically, the new legislation, which will be directly applicable in all member states, aims at simplifying and streamlining the approval of clinical trials in the European Union. For instance, the new Clinical Trials Regulation provides for a streamlined application procedure via a single-entry point and strictly defined deadlines for the assessment of clinical trial applications. As of January 1, 2020, the website of the European Commission reported that the implementation of the new Clinical Trials Regulation was dependent on the development of a fully functional clinical trials portal and database, which would be confirmed by an independent audit, and that the new legislation would come into effect six months after the European Commission publishes a notice of this confirmation. The website indicated that the audit was expected to commence in December 2020.

Parties conducting certain clinical trials must, as in the United States, post clinical trial information in the European Union at the EudraCT website: https://eudract.ema.europa.eu.

PRIME Designation in the EU

In March 2016, the EMA launched an initiative to facilitate development of product candidates in indications, often rare, for which few or no therapies currently exist. The PRIority MEdicines, or PRIME, scheme

is intended to encourage drug development in areas of unmet medical need and provides accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Products from small- and medium-sized enterprises may qualify for earlier entry into the PRIME scheme than larger companies. Many benefits accrue to sponsors of product candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue with the EMA, frequent discussions on clinical trial designs and other development program elements, and accelerated marketing authorization application assessment once a dossier has been submitted. Importantly, a dedicated EMA contact and rapporteur from the Committee for Human Medicinal Products, or CHMP, or Committee for Advanced Therapies are appointed early in the PRIME scheme facilitating increased understanding of the product at the EMA's Committee level. A kick-off meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies.

Marketing Authorization

To obtain a marketing authorization for a product under the European Union regulatory system, an applicant must submit an MAA, either under a centralized procedure administered by the EMA or one of the procedures administered by competent authorities in European Union Member States (decentralized procedure, national procedure, or mutual recognition procedure). A marketing authorization may be granted only to an applicant established in the European Union. Regulation (EC) No 1901/2006 provides that prior to obtaining a marketing authorization in the European Union, an applicant must demonstrate compliance with all measures included in an EMA-approved Pediatric Investigation Plan, or PIP, covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, class waiver, or a deferral for one or more of the measures included in the PIP.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid for all EU member states. 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 and products with a new active substance indicated for the treatment of certain diseases, including products for the treatment of cancer. For products with a new active substance indicated for the treatment of other diseases and products that are highly innovative or for which a centralized process is in the interest of patients, the centralized procedure may be optional. Manufacturers must demonstrate the quality, safety, and efficacy of their products to the EMA, which provides an opinion regarding the MAA. The European Commission grants or refuses marketing authorization in light of the opinion delivered by the EMA.

Specifically, the grant of marketing authorization in the European Union for products containing viable human tissues or cells such as gene therapy medicinal products is governed by Regulation 1394/2007/EC on advanced therapy medicinal products, read in combination with Directive 2001/83/EC of the European Parliament and of the Council, commonly known as the Community code on medicinal products. Regulation 1394/2007/EC lays down specific rules concerning the authorization, supervision, and pharmacovigilance of gene therapy medicinal products, somatic cell therapy medicinal products, and tissue engineered products. Manufacturers of advanced therapy medicinal products must demonstrate the quality, safety, and efficacy of their products to EMA which provides an opinion regarding the application for marketing authorization. The European Commission grants or refuses marketing authorization in light of the opinion delivered by EMA.

Under the centralized procedure, the CHMP established at the EMA is responsible for conducting an initial assessment of a product. Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Accelerated evaluation may be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation. If the CHMP accepts such

a request, the time limit of 210 days will be reduced to 150 days, but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that it is no longer appropriate to conduct an accelerated assessment.

Regulatory Data Protection in the European Union

In the European Union, new chemical entities approved on the basis of a complete independent data package qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity pursuant to Regulation (EC) No 726/2004, as amended, and Directive 2001/83/EC, as amended. Data exclusivity prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic (abbreviated) application for a period of eight years. During the additional two-year period of market exclusivity, a generic MAA can be submitted, and the innovator's data may be referenced, but no generic medicinal product can be marketed until the expiration of the market exclusivity. The overall ten-year period will 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 authorization, is 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 an MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials.

Patent Term Extensions in the European Union and Other Jurisdictions

The European Union also provides for patent term extension through Supplementary Protection Certificates, or SPCs. The rules and requirements for obtaining a SPC are similar to those in the United States. An SPC may extend the term of a patent for up to five years after its originally scheduled expiration date and can provide up to a maximum of fifteen years of marketing exclusivity for a drug. In certain circumstances, these periods may be extended for six additional months if pediatric exclusivity is obtained, which is described in detail below. Although SPCs are available throughout the European Union, sponsors must apply on a country-by-country basis. Similar patent term extension rights exist in certain other foreign jurisdictions outside the European Union.

Periods of Authorization and Renewals

A marketing authorization is valid for five years, in principle, and it may be renewed after five years on the basis of a reevaluation of the risk-benefit balance by the EMA or by the competent authority of the authorizing member state. To that end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least six months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the competent authority decides, on justified grounds relating to pharmacovigilance, to proceed with one additional five-year renewal period. Any authorization that is not followed by the placement of the drug on the EU market (in the case of the centralized procedure) or on the market of the authorizing member state within three years after authorization ceases to be valid.

Regulatory Requirements after Marketing Authorization

Following approval, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of the medicinal product. These include compliance with the European Union's stringent pharmacovigilance or safety reporting rules, pursuant to which post-authorization studies and additional monitoring obligations can be imposed. In addition, the manufacturing of authorized products, for which a separate manufacturer's license is mandatory, must also be

conducted in strict compliance with the EMA's good manufacturing practice requirements and comparable requirements of other regulatory bodies in the European Union, which mandate the methods, facilities, and controls used in manufacturing, processing and packing of drugs to assure their safety and identity. Finally, the marketing and promotion of authorized products, including industry-sponsored continuing medical education and advertising directed toward the prescribers of drugs and/or the general public, are strictly regulated in the European Union under Directive 2001/83EC, as amended.

Orphan Drug Designation and Exclusivity

Regulation (EC) No 141/2000 and Regulation (EC) No. 847/2000 provide that a product can be designated as an orphan drug by the European Commission if its sponsor can establish: that the product is intended for the diagnosis, prevention or treatment of (1) a life-threatening or chronically debilitating condition affecting not more than five in ten thousand persons in the European Union when the application is made, or (2) a life-threatening, seriously debilitating or serious and chronic condition in the European Union and that without incentives it is unlikely that the marketing of the drug in the European Union would generate sufficient return to justify the necessary investment. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention, or treatment of the condition in question that has been authorized in the European Union or, if such method exists, the drug will be of significant benefit to those affected by that condition.

An orphan drug designation provides a number of benefits, including fee reductions, regulatory assistance, and the possibility to apply for a centralized European Union marketing authorization. Marketing authorization for an orphan drug leads to a ten-year period of market exclusivity. During this market exclusivity period, neither the EMA nor the European Commission or the member states can accept an application or grant a marketing authorization for a "similar medicinal product." A "similar medicinal product" is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The market exclusivity period for the authorized therapeutic indication may, however, 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 drug designation because, for example, the product is sufficiently profitable not to justify market exclusivity.

Brexit and the Regulatory Framework in the United Kingdom

On June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as Brexit. Following protracted negotiations, the United Kingdom left the European Union on January 31, 2020. Under the withdrawal agreement, there is a transitional period until December 31, 2020, which is extendable up to two years. Discussions between the United Kingdom and the European Union have so far mainly focused on finalizing withdrawal issues and transition agreements but have been extremely difficult to date. To date, only an outline of a trade agreement has been reached. Much remains open but the Prime Minister has indicated that the United Kingdom will not seek to extend the transitional period beyond the end of 2020. If no trade agreement has been reached before the end of the transitional period, there may be significant market and economic disruption. The Prime Minister has also indicated that the UK will not accept high regulatory alignment with the European Union.

Since the regulatory framework for pharmaceutical products in the United Kingdom covering quality, safety, and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales, and distribution of pharmaceutical products is derived from European Union directives and regulations, Brexit could materially impact the future regulatory regime that applies to products and the approval of product candidates in the United Kingdom. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, may force us to restrict or delay efforts to seek regulatory approval in the United Kingdom for our product candidates, which could significantly and materially harm our business.

Furthermore, while the Data Protection Act of 2018 in the United Kingdom that "implements" and complements the EU General Data Protection Regulation, or GDPR, has achieved Royal Assent on May 23, 2018 and is now effective in the United Kingdom, it is still unclear whether transfer of data from the EEA to the United Kingdom will remain lawful under GDPR. During the period of "transition" (i.e., until December 31, 2020), EU law will continue to apply in the UK, including the GDPR, after which the GDPR will be converted into UK law. Beginning in 2021, the UK will be a "third country" under the GDPR. We may, however, incur liabilities, expenses, costs, and other operational losses under GDPR and applicable EU Member States and the United Kingdom privacy laws in connection with any measures we take to comply with them.

General Data Protection Regulation

The collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the EU, including personal health data, is subject to the GDPR, which became effective on May 25, 2018. 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. The GDPR also imposes strict rules on the transfer of personal data to countries outside the EU, including the U.S., and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. Compliance with the GDPR will be a rigorous and time-intensive process that may increase the cost of doing business or require companies to change their business practices to ensure full compliance.

Coverage, Pricing, and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we may seek regulatory approval by the FDA or other government authorities. 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. Patients are unlikely to use any product candidates we may develop unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of such product candidates. Even if any product candidates we may develop are approved, sales of such product candidates 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, such product candidates. The process for determining whether a 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, and 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, in addition to the costs required to obtain FDA or other comparable marketing approvals. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover any product candidates we may develop could reduce physician utilization of such product candidates once approved and have a material adverse effect on our sales, results of operations and financial condition. Additionally, a 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. Third-party reimbursement and coverage may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. In addition, any companion diagnostic tests require coverage and reimbursement separate and apart from the coverage and reimbursement for their companion pharmaceutical or biological products. Similar challenges to obtaining coverage and reimbursement, applicable to pharmaceutical or biological products, will apply to any companion diagnostics.

The containment of healthcare costs also has become a priority of federal, state and foreign governments and the prices of pharmaceuticals 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 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 marketing approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Outside the United States, ensuring adequate coverage and payment for any product candidates we may develop will face challenges. Pricing of prescription pharmaceuticals is subject to governmental control in many countries. Pricing negotiations with governmental authorities can extend well beyond the receipt of regulatory marketing approval for a product and may require us to conduct a clinical trial that compares the cost effectiveness of any product candidates we may develop to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in our commercialization efforts.

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. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies (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 it 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 (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 of our products, if approved in those countries.

Healthcare Law and Regulation

Healthcare providers and third-party payors play a primary role in the recommendation and prescription of pharmaceutical products that are granted marketing approval. Arrangements with providers, consultants,

third-party payors, and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, reporting of payments to physicians and teaching physicians and patient privacy laws and regulations and other healthcare laws and regulations that may constrain our business and/or financial arrangements. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, 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, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;

- the federal civil and criminal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious, or fraudulent or knowingly making, using, or causing to made or used a false record or statement to avoid, decrease, or conceal an obligation to pay money to the federal government;

- the federal civil monetary penalty and false statement laws and regulations relating to pricing and submission of pricing information for government programs, including penalties for knowingly and intentionally overcharging 340b eligible entities and the submission of false or fraudulent pricing information to government entities;

- HIPAA, which created additional federal criminal laws that prohibit, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

- HIPAA, as amended by HITECH, and their respective implementing regulations, including the Final Omnibus Rule published in January 2013, which impose obligations, including mandatory contractual terms, on certain covered healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that perform services for them, that involve the use, or disclosure of, individually identifiable health information, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information;

- the federal false statements statute, which prohibits 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;

- the Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from making, or offering or promising to make improper payments to non-U.S. officials for the purpose of obtaining or retaining business or otherwise seeking favorable treatment;

- the federal transparency requirements known as the federal Physician Payments Sunshine Act, under the Patient Protection and Affordable Care Act, or ACA, as amended by the Health Care Education Reconciliation Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the U.S. Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians, as defined by such law, and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to healthcare items or services that are 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 pharmaceutical manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures. In addition, certain state and local laws require drug manufacturers to register pharmaceutical sales representatives. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

If our operations are 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, disgorgement, exclusion from government funded healthcare programs, such as Medicare and Medicaid, integrity oversight and reporting obligations, and the curtailment or restructuring of our operations.

Healthcare Reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States.

By way of example, the United States and state governments continue to propose and pass legislation designed to reduce the cost of healthcare. 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 healthcare programs. Among the provisions of the ACA of importance to our potential product candidates are:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs, although this fee would not apply to sales of certain products approved exclusively for orphan indications;
- expansion of 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" for calculating and reporting Medicaid drug rebates on outpatient prescription drug prices and extending rebate liability to prescriptions for individuals enrolled in Medicare Advantage plans;
- addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for products 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 a 50% point-of-sale-discount off the negotiated price of applicable products to eligible beneficiaries during their coverage gap period as a condition for the manufacturers' outpatient products to be covered under Medicare Part D;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;

- the Independent Payment Advisory Board, or IPAB, which has authority to recommend certain changes to the Medicare program to reduce expenditures by the program that could result in reduced payments for prescription products. However, the IPAB implementation has been not been clearly defined. The ACA provided that under certain circumstances, IPAB recommendations will become law unless Congress enacts legislation that will achieve the same or greater Medicare cost savings; and

- established the Center for Medicare and Medicaid Innovation within CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription product spending. Funding has been allocated to support the mission of the Center for Medicare and Medicaid Innovation from 2011 to 2019.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. For example, 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 2012 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 of up to 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2029 unless additional Congressional action is taken. The American Taxpayer Relief Act of 2012, which was enacted in January 2013, 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.

Since enactment of the ACA, there have been, and continue to be, numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts and Jobs Act of 2017, or the TCJA, which was signed by President Trump on December 22, 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, will become effective in 2019. Additionally, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the ACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and medical device tax and, effective January 1, 2021, also eliminates the health insurer tax. Further, the Bipartisan Budget Act of 2018, among other things, amended the ACA, effective January 1, 2019, to increase from 50% to 70% the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." The Congress may consider other legislation to replace elements of the ACA during the next Congressional session.

The current presidential administration has also taken executive actions to undermine or delay implementation of the ACA. Since January 2017, the president has signed two Executive Orders designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. One Executive Order directs 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 or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. The second Executive Order terminates the cost-sharing subsidies that reimburse insurers 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. In addition, CMS has recently proposed regulations that would give states greater flexibility 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. Further, on June 14, 2018, U.S. Court of Appeals for the Federal Circuit ruled that the federal government was not required to pay more than $12 billion in ACA risk corridor payments to third-party payors who argued were owed to them. This decision is under review by the U.S. Supreme Court during its current term. The full effects of this gap in reimbursement on third-party payors, the viability of the ACA marketplace, providers, and potentially our business, are not yet known.

In addition, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseverable feature of the ACA, and therefore because the mandate was repealed as part of the TCJA, the remaining provisions of the ACA are invalid as well. The current presidential administration and CMS have both stated that the ruling will have no immediate effect, and on December 30, 2018 the same judge issued an order staying the judgment pending appeal. The current presidential administration recently represented to the Court of Appeals considering this judgment that it does not oppose the lower court's ruling. On July 10, 2019, the Court of Appeals for the Fifth Circuit heard oral argument in this case. On December 18, 2019, that court affirmed the lower court's ruling that the individual mandate portion of the ACA is unconstitutional and it remanded the case to the district court for reconsideration of the severability question and additional analysis of the provisions of the ACA. On March 2, 2020, the U.S. Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which are expected to occur in the fall. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results.

Further, there have been several recent U.S. congressional inquiries and proposed federal and proposed and enacted state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. For example, there have been several recent U.S. congressional inquiries and proposed federal and proposed and enacted state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. At the federal level, Congress and the current presidential administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. For example, on May 11, 2018, the Administration issued a plan to lower drug prices. Under this blueprint for action, the Administration indicated that the Department of Health and Human Services will take steps to end the gaming of regulatory and patent processes by drug makers to unfairly protect monopolies; advance biosimilars and generics to boost price competition; evaluate the inclusion of prices in drug makers' ads to enhance price competition; speed access to and lower the cost of new drugs by clarifying policies for sharing information between insurers and drug makers; avoid excessive pricing by relying more on value-based pricing by expanding outcome-based payments in Medicare and Medicaid; work to give Part D plan sponsors more negotiation power with drug makers; examine which Medicare Part B drugs could be negotiated for a lower price by Part D plans, and improving the design of the Part B Competitive Acquisition Program; update Medicare's drug-pricing dashboard to increase transparency; prohibit Part D contracts that include "gag rules" that prevent pharmacists from informing patients when they could pay less out-of-pocket by not using insurance; and require that Part D plan members be provided with an annual statement of plan payments, out-of-pocket spending, and drug price increases. On March 10, 2020, the current presidential 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. In addition, on December 23, 2019, the current presidential administration published a proposed rulemaking that, if finalized, would allow states or certain other non-federal government entities to submit importation program proposals to FDA for review and approval. Applicants would be required to demonstrate their importation plans pose no additional risk to public health and safety and will result in significant cost savings for consumers. At the same time, FDA issued draft guidance that would allow manufacturers to import their own FDA-approved drugs that are authorized for sale in other countries (multi-market approved products).

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 healthcare 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 healthcare 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 product candidates or additional pricing pressures.

There have been, and likely will continue to be, additional 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. Such reforms could have an adverse effect on anticipated revenues from product candidates that we may successfully develop and for which we may obtain marketing approval and may affect our overall financial condition and ability to develop product candidates.

Employees

As of April 15, 2020, we had 21 full-time employees, including a total of six employees with M.D. or Ph.D. degrees. Of these full-time employees, 14 are engaged in research and development activities. 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.

Facilities

Our principal facilities consist of office and laboratory space in Boston, Massachusetts. We occupy approximately 8,499 square feet of office space under a lease that is expected to expire in the second half of 2025 and approximately 3,560 square feet of laboratory space under a lease that expires in July 2020. We believe that our facilities are sufficient to meet our current needs.

Legal Proceedings

We are currently not a party to any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the name, age as of April 15, 2020 and position of each of our executive officers and directors.

Name	Age	Position
Axel Bolte	48	President and Chief Executive Officer, Director
Stephen Basso	54	Senior Vice President, Finance
Henric Bjarke	53	Senior Vice President, Chief Operating Officer
Pedro Huertas	66	Senior Vice President, Chief Medical Officer
Steven Jungles	54	Senior Vice President, Chief Technical Operations Officer
Sarah Bhagat	34	Director
Reinaldo Diaz	66	Director
Martin Edwards	64	Director
Robert Hopfner	47	Director
Edward Mathers	60	Director

(1) Member of the Audit Committee.
(2) Member of the Compensation Committee.
(3) Member of the Nominating and Corporate Governance Committee.

Executive Officers

Axel Bolte has served as our president and chief executive officer and as a member of our board of directors since September 2015, when he co-founded our company. Since March 2017, Mr. Bolte also has served as a managing member of Healthcare Advisors GmbH, a private healthcare advisory company. Mr. Bolte served as a venture partner at HBM Partners AG, a provider of investment advisor services in the life sciences industry, from February 2017 to September 2019 and as an investment advisor to HBM Partners AG from March 2003 to January 2017. Mr. Bolte currently serves on the board of directors of IVERIC bio, Inc. (formerly known as Ophthotech Corporation), or IVERIC, and previously served on the board of directors of Allena Pharmaceuticals, Inc., Nabriva Therapeutics plc and PTC Therapeutics, Inc., all of which are publicly traded biotechnology or pharmaceutical companies. Mr. Bolte received a degree in biochemistry from the Swiss Federal Institute of Technology, Zurich, Switzerland and an M.B.A. from the University of St. Gallen, Switzerland. We believe Mr. Bolte's extensive experience as a venture capital investor in the life sciences industry and his extensive knowledge of our company based on his current role as our chief executive officer qualify him to serve on our board of directors.

Stephen Basso has served as our senior vice president, finance since January 2020. Mr. Basso served as our vice president, finance from October 2017 to January 2020. Prior to joining our company, Mr. Basso held a variety of positions at Alexion Pharmaceuticals, Inc., or Alexion, a pharmaceutical company, including vice president, North America commercial and global general and administrative finance from May 2016 to May 2017, vice president, corporate financial planning and analysis from February 2014 to May 2016, executive director, finance from July 2011 to February 2014 and senior director, finance and planning from January 2009 to July 2011. Prior to joining Alexion, Mr. Basso served in various finance roles at Pfizer Inc., or Pfizer, a pharmaceutical company. Mr. Basso received a B.S. in business from Providence College and an M.B.A. from Boston College.

Henric Bjarke has served as our senior vice president and chief operating officer since July 2017. Prior to joining our company, Mr. Bjarke served as senior vice president, chief commercial officer of IVERIC from September 2015 to April 2017. Mr. Bjarke served as vice president, global metabolic disorders franchise of

Alexion from November 2012 to August 2015 and as vice president, North America commercial operations of Alexion from September 2010 to November 2012. Prior to joining Alexion, Mr. Bjarke served in various commercial roles at Watson Pharmaceuticals, Eyetech Pharmaceuticals, Inc. and Pharmacia Corporation. Mr. Bjarke received a B.A. Sc. in business administration and economics from Uppsala University in Sweden.

Pedro Huertas, M.D., Ph.D. has served as our senior vice president and chief medical officer since September 2019. Since 2005, Dr. Huertas has also served as managing director of Mirror Neuron Systems, LLC, a consulting company focusing on the biopharmaceutical industry. Prior to joining our company, Dr. Huertas served as chief medical officer of Sentien Biotechnologies, Inc., a biotechnology company, from September 2018 to September 2019 and as chief medical officer of Eloxx Pharmaceuticals, Ltd., a pharmaceutical company, from May 2015 to September 2018. Dr. Huertas served as precision medicine clinical lead at Pfizer from March 2014 to May 2015 and as a global medical lead from January 2012 to March 2014. Prior to joining Pfizer, Dr. Huertas served as global medical lead at Shire Human Genetic Therapies, a biopharmaceutical company. Dr. Huertas also served in senior roles at Amicus Therapeutics, Inc., Advanced Cell Technologies, Novazyme Pharmaceuticals and Genzyme Corp. Dr. Huertas received an M.S. in biochemistry from Stanford University, an M.S. in management from the Sloan School of Management at the Massachusetts Institute of Technology, an M.D. from Harvard Medical School and a Ph.D. in cell and developmental biology from Harvard University.

Steven Jungles has served as our senior vice president and chief technical operations officer since May 2017. Mr. Jungles has also served as a consultant to SJJ BioConsulting LLC, a biopharmaceutical consulting company, since April 2015. Mr. Jungles served as senior vice president of technical operations at Ultragenyx Pharmaceutical Inc., a pharmaceutical company, from July 2011 to April 2015, and in various roles at BioMarin Pharmaceutical, Inc., a pharmaceutical company, from 1999 to July 2011. Mr. Jungles received a B.S. in biology from the University of Iowa.

Non-Employee Directors

Sarah Bhagat, Ph.D. has served on our board of directors since March 2019. Dr. Bhagat has served as a partner at Sofinnova Investments, Inc., or Sofinnova, a venture capital firm, since March 2020. She served as principal at Sofinnova from January 2019 to December 2019 and as an associate from May 2017 to December 2018. Dr. Bhagat was a postdoctoral fellow at Stanford University from April 2016 to May 2017. Dr. Bhagat served as a venture fellow at Canaan Partners, a venture capital firm, from February 2015 to February 2016. Dr. Bhagat also served as a research assistant at The Rockefeller University from May 2008 to May 2010 and a clinical research coordinator at Massachusetts General Hospital from June 2007 to May 2008. Dr. Bhagat received a B.A. in biological psychology from Franklin & Marshall College and a Ph.D. in neuroscience from Yale University. We believe Dr. Bhagat's extensive industry experience and her scientific background qualifies her to serve on our board of directors.

Reinaldo M. Diaz has served on our board of directors since January 2017. Mr. Diaz has served as venture partner at Longitude Capital Management Co., LLC, a venture capital firm focusing on healthcare companies, since November 2015. Mr. Diaz has served as the managing member and managing director of DA Advisors, LLC., a financial and strategic consulting company focusing on biopharmaceutical companies, since 2005. Mr. Diaz served as a managing director at Auven Therapeutics, a private equity firm focusing on life sciences from 2008 to 2018. Mr. Diaz served as managing member and co-founder of Diaz & Altschul Capital Management, LLC, an asset management firm focusing on healthcare companies, from 1996 to 2005. Mr. Diaz served as managing director and head of the healthcare group at Schroder Wertheim & Co., Inc. from 1993 to 1996. Mr. Diaz served in various roles at PaineWebber Development Corporation from 1985 to 1993, including as president from 1990 to 1993. Mr. Diaz received a B.A. in general studies from Harvard University and an M.B.A. from Harvard Business School. We believe Mr. Diaz's extensive experience as a venture capital investor in the life sciences industry qualifies him to serve on our board of directors.

Martin Edwards, M.D. has served on our board of directors since September 2017. Dr. Edwards has served as a senior partner at Novo Holdings A/S, a Danish limited liability company that manages investments

and financial assets, since 2009. Dr. Edwards is expected to retire from Novo Holdings A/S in the fall of 2020. Dr. Edwards served as a partner at Novo Holdings A/S from 2003 to 2009. Earlier in his career, Dr. Edwards served as chief executive officer of ReNeuron Ltd., a stem cell research company based in the United Kingdom, and as global head of drug development for Novo Nordisk A/S, where he led preclinical and clinical drug development. Dr. Edwards currently serves on the board of directors of KalVista Pharmaceuticals, Inc. and Verona Pharma plc, both publicly traded pharmaceutical companies, and previously served on the board of directors of CoLucid Pharmaceuticals, Inc., a publicly traded pharmaceutical company, from January 2015 to March 2017. Dr. Edwards received an M.B.A. from the University of Warwick in England and an M.D. from the University of Manchester in England. We believe Dr. Edwards is qualified to serve on our board of directors based on his medical background and extensive experience as an investor and executive in the pharmaceutical industry.

Robert Hopfner, Ph.D. has served on our board of directors since November 2018. Dr. Hopfner has served as managing partner of Pivotal bioVenture Partners, a venture capital firm focused on life sciences, since October 2017. Dr. Hopfner served in various roles at Bay City Capital, a venture capital firm focused on life sciences, from August 2002 to October 2017, including as a principal from June 2007 to October 2009 and as managing director and investment partner from October 2009 to October 2017. Dr. Hopfner received a B.S. in pharmacy from the University of Saskatchewan, an M.B.A. from the University of Chicago Booth School of Business and a Ph.D. in pharmacology from the University of Saskatchewan. We believe Dr. Hopfner's experience as a venture capital investor in the life sciences industry and his scientific background qualifies him to serve on our board of directors.

Edward Mathers has served on our board of directors since January 2017. Mr. Mathers has served as a general partner at New Enterprise Associates, Inc., or NEA, a private venture capital firm focusing on technology and healthcare investments, since November 2019. He served as partner at NEA from August 2008 to October 2019. Prior to joining NEA, Mr. Mathers served as executive vice president, corporate development and venture at MedImmune, Inc., or MedImmune, a biopharmaceutical company, and led its venture capital subsidiary, MedImmune Ventures, Inc. Mr. Mathers currently serves on the board of directors of ObsEva SA, Rhythm Pharmaceuticals, Inc., Synlogic, Inc. (formerly known as Mirna Therapeutics, Inc.), Trevi Therapeutics, Inc. and Mirum Pharmaceuticals, Inc., all publicly traded pharmaceutical companies, and he previously served on the board of directors of Liquidia Technologies, Inc., a publicly traded life sciences company, from April 2009 to May 2019 and Ra Pharmaceuticals, Inc., a publicly-traded pharmaceutical company, from February 2010 to April 2020. Mr. Mathers received a B.S. in chemistry from North Carolina State University. We believe Mr. Mathers is qualified to serve on our board of directors based on his experience advising pharmaceutical companies as well as his experience as a director of public and private companies in the life sciences industry.

Board Composition and Election of Directors

Board Composition

Our board of directors is currently authorized to have nine members and currently consists of six members. Our directors hold office until their successors have been elected and qualified or until the earlier of their death, resignation or removal.

Our certificate of incorporation and bylaws that will become effective upon the closing of this offering provide that the authorized number of directors may be changed only by resolution of our board of directors. Our certificate of incorporation and bylaws will also provide that our directors may be removed only for cause by the affirmative vote of the holders of 75% of our shares of capital stock present in person or by proxy and entitled to vote, 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.

In accordance with the terms of our certificate of incorporation and bylaws that will become effective upon the closing of this offering, our board of directors will be divided into three classes, class I, class II and

class III, with members of each class serving staggered three-year terms. Upon the closing of this offering, the members of the classes will be divided as follows:

- the class I directors will be and , and their term will expire at the annual meeting of stockholders to be held in 2021;
- the class II directors will be and , and their term will expire at the annual meeting of stockholders to be held in 2022; and
- the class III directors will be and , and their term will expire at the annual meeting of stockholders to be held in 2023.

Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires.

The classification of our board of directors may have the effect of delaying or preventing changes in our control or management. See the "Description of Capital Stock—Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions" section of this prospectus for additional information.

Director Independence

Applicable Nasdaq rules require a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, Nasdaq rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under applicable Nasdaq rules, a director will only qualify as an "independent director" if, in the opinion of the listed 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, 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, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise 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 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: (1) the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and (2) whether the director is affiliated with the company or any of its subsidiaries or affiliates.

In 2020, our board of directors undertook a review of the composition of our board of directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that each of our directors, with the exception of Mr. Bolte, is an "independent director" as defined under applicable Nasdaq rules, including, in the case of all the members of our audit committee, the independence criteria set forth in Rule 10A-3 under the Exchange Act, and in the case of all the members of our compensation committee, the independence criteria set forth in Rule 10C-1 under the Exchange Act. In making such determination, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining his or her independence, including the beneficial ownership of our capital stock

by each non-employee director. Mr. Bolte is not an independent director under these rules because he is our president and chief executive officer.

There are no family relationships among any of our directors or executive officers.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which operates under a charter that has been approved by our board. The composition of each committee will be effective as of the date of this prospectus.

Audit Committee

The members of our audit committee are , and . is the chair of the audit committee. Effective at the time of this offering, our audit committee's responsibilities will include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of reports from that firm;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function, if any;
- overseeing our risk assessment and risk management policies;
- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our internal auditing staff, if any, our independent registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required SEC rules.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our board of directors has determined that is an "audit committee financial expert" as defined in applicable SEC rules and that each of the members of our audit committee possesses the financial sophistication required for audit committee members under Nasdaq rules. We believe that the composition of our audit committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Compensation Committee

The members of our compensation committee are , and . is the chair of the compensation committee. Effective at the time of this offering, our compensation committee's responsibilities will include:

- reviewing and approving, or making recommendations to our board of directors with respect to, the compensation of our chief executive officer and our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to our board of directors with respect to director compensation;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis" disclosure if and to the extent then required by SEC rules; and
- preparing the compensation committee report if and to the extent then required by SEC rules.

We believe that the composition of our compensation committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are , and . is the chair of the nominating and corporate governance committee. Effective at the time of this offering, our nominating and corporate governance committee's responsibilities will include:

- recommending to our board of directors the persons to be nominated for election as directors and to each of our board's committees;
- reviewing and making recommendations to our board with respect to our board leadership structure;
- reviewing and making recommendations to our board with respect to management succession planning;
- developing and recommending to our board of directors corporate governance principles; and
- overseeing a periodic evaluation of our board of directors.

We believe that the composition of our nominating and corporate governance committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Compensation Committee Interlocks and Insider Participation

None of our executive officers serves, or in the past year has served, as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or our compensation committee. None of the members of our compensation committee is, or has ever been, an officer or employee of our company.

Code of Ethics and Code of Conduct

We intend to adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We intend to post a current copy of the code on our website, www.inozyme.com. In addition, we intend to post on our website all disclosures that are required by law or Nasdaq listing standards concerning any amendments to, or waivers from, any provision of the code. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

EXECUTIVE COMPENSATION

The following discussion relates to the compensation of our president and chief executive officer, Axel Bolte, our senior vice president and chief operating officer, Henric Bjarke, and our senior vice president and chief technical operations officer, Steven Jungles, for fiscal year 2019. Mr. Bolte, Mr. Bjarke and Mr. Jungles are collectively referred to in this prospectus as our named executive officers.

In preparing to become a public company, we have begun a thorough review of all elements of our executive compensation program, including the function and design of our equity incentive programs. We have begun, and expect to continue in the coming months, to evaluate the need for revisions to our executive compensation program to ensure that our program is competitive with the companies with which we compete for executive talent and is appropriate for a public company.

As we are an emerging growth company, we have elected to comply with the reduced compensation disclosure requirements available to emerging growth companies under the Jumpstart Our Business Startups Act of 2012.

Summary Compensation Table

The following table sets forth information regarding compensation awarded to, earned by or paid to each of our named executive officers for the year ended December 31, 2019.

Name and Principal Position	Year	Salary ($)	Bonus ($)(1)	Option awards ($)(2)	All other compensation ($)	Total ($)
Axel Bolte *President and Chief Executive Officer*	2019	378,000(3)	179,313	353,470	60,000(4)	970,783
Henric Bjarke *Senior Vice President and Chief Operating Officer*	2019	350,200	99,201	141,388	—	590,789
Steven Jungles *Senior Vice President and Chief Technical Operations Officer*	2019	283,250	80,236	121,172	—	484,658

(1) The amounts reported in the "Bonus" column reflect discretionary annual cash bonuses paid to our executive officers for their performance in 2019.

(2) The amounts reported in the "Option awards" column reflect the grant date fair value of stock options awarded during the year computed in accordance with the provisions of Financial Accounting Standard Board, or FASB, Accounting Standards Codification, or ASC, Topic 718. See Note 8 to our consolidated financial statements appearing at the end of this prospectus regarding assumptions underlying the valuation of equity awards. These amounts reflect the accounting cost for these stock options and do not reflect the actual economic value that may be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options or the sale of the common stock underlying such stock options.

(3) Represents base compensation paid by us under our consulting agreement with Healthcare Advisors GmbH, of which Mr. Bolte is the manager. Under the consulting agreement with Healthcare Advisors GmbH, Mr. Bolte provides services to us as our president and chief executive officer.

(4) Represents amounts paid to Mr. Bolte for the purchase of health insurance, disability insurance and others benefits in Switzerland that are similar to a 401(k) plan.

Narrative to Summary Compensation Table

Base Compensation. In 2019, we paid Mr. Bolte annual base compensation of $378,000. In March 2020, our board of directors set Mr. Bolte's 2020 monthly base compensation at $32,445 for an aggregate annual

amount of $389,340. In 2019, we paid Mr. Bjarke and Mr. Jungles an annualized base salary of $350,200 and $283,250, respectively. In March 2020, our board of directors set Mr. Bjarke's and Mr. Jungle's 2020 annual base salary at $360,706 and $386,164, respectively.

We use base compensation or salaries to recognize the experience, skills, knowledge and responsibilities required of our executive officers. None of our executive officers is currently party to an employment agreement or other agreement or arrangement that provides for automatic or scheduled increases in base compensation or salary.

Annual Bonus. Our board of directors may, in its discretion, award bonuses to our executive officers from time to time. Our executive officers are eligible for annual performance-based bonuses up to a specified percentage of their base compensation or salary, subject to approval by our board of directors. Performance-based bonuses, which are calculated as a percentage of base compensation or salary, are designed to motivate our executive officers to achieve annual goals based on our strategic, financial and operating performance objectives. From time to time, our board of directors has approved discretionary annual cash bonuses to our executive officers with respect to their prior year performance.

With respect to 2019 performance, our board of directors awarded bonuses of $179,313, $99,201 and $80,236 to Mr. Bolte, Mr. Bjarke and Mr. Jungles, respectively.

The 2020 target bonus amount, expressed as a percentage of 2020 base compensation or salary, is 50% for Mr. Bolte and 35% for each of Mr. Bjarke and Mr. Jungles.

Equity Incentives. Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers, or any formal equity ownership guidelines applicable to them, 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 with a time-based vesting feature promote executive retention because this feature incentivizes our executive officers to remain in our employment during the vesting period. Accordingly, our board of directors periodically reviews the equity incentive compensation of our executive officers and from time to time may grant equity incentive awards to them in the form of stock options.

In June 2019, we granted options to purchase 1,750,000, 700,000 and 450,000 shares of our common stock to Mr. Bolte, Mr. Bjarke and Mr. Jungles, respectively, at an exercise price per share of $0.27. These options were merit-based awards, and such options vest in equal monthly installments over a term of four years from the vesting commencement date, subject to continued service. In December 2019, we granted options to purchase 150,000 shares of our common stock to Mr. Jungles at an exercise price per share of $0.27 in connection with his promotion to full-time employment. These options vest as to 25% of the shares underlying the option on the first anniversary of the vesting commencement date and as to an additional 2.0833% of the original number of shares underlying the option monthly thereafter, subject to continued service.

Prior to this offering, our executives were eligible to participate in our Amended and Restated 2017 Equity Incentive Plan, as amended to date, or the 2017 Plan. During 2017, 2018 and 2019 (and through the effectiveness of the registration statement of which this prospectus is a part), all stock options were granted pursuant to the 2017 Plan. Following the closing of this offering, our employees and executives will be eligible to receive stock options and other stock-based awards pursuant to our 2020 Stock Incentive Plan, or the 2020 Plan. For a description of our 2017 Plan and our 2020 Plan, see "—Stock Option and Other Compensation Plans" below.

We use stock options to compensate our executive officers in the form of initial grants in connection with the commencement of employment and also at various times, often but not necessarily annually, if we or they have performed as expected or better than expected. Prior to this offering, awards of stock options to our

executive officers have been made by our board of directors. None of our executive officers is currently party to an employment agreement that provides for the automatic award of stock options. We have granted option awards to our executive officers with time-based vesting. The option awards that we have granted to our executive officers in connection with commencement of employment typically become exercisable as to 25% of the shares underlying the option on the first anniversary of the vesting commencement date and as to an additional 2.0833% of the original number of shares underlying the option monthly thereafter. The option awards that we have granted to our executive officers at times other than in connection with employment typically become exercisable in equal monthly installments over a term of four years from the applicable vesting commencement date. Vesting rights cease upon termination of employment and exercise rights for previously vested stock options cease shortly after termination, though exercisability is extended in the case of death or disability. Mr. Bolte received an option to purchase 424,100 shares in 2017 that provides for acceleration of vesting in event we undergo a change of control or Mr. Bolte ceases to provide services to due his death or disability. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including no voting rights and no right to receive dividends or dividend equivalents.

We have historically granted stock options with exercise prices that are equal to the fair market value of our common stock on the date of grant as determined by our board of directors, based on a number of objective and subjective factors. The exercise price of all stock options granted after the closing of this offering will be equal to the fair market value of shares of our common stock on the date of grant, which will be determined by reference to the closing market price of our common stock on the date of grant.

Outstanding Equity Awards at December 31, 2019

The following table sets forth information regarding all outstanding stock options held by each of our named executive officers as of December 31, 2019.

	Option Awards			
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date
Axel Bolte	911,458	338,542(1)	$ 0.13	6/27/2027
	309,239	114,861(2)	$ 0.13	6/27/2027
	218,750	1,531,250(3)	$ 0.27	6/19/2029
Henric Bjarke	604,166	395,834(4)	$ 0.13	9/6/2027
	87,500	612,500(5)	$ 0.27	6/19/2029
Steven Jungles	627,083	232,917(6)	$ 0.13	6/27/2027
	56,250	393,750(7)	$ 0.27	6/19/2029
	—	150,000(8)	$ 0.27	12/11/2029

(1) This option to purchase 1,250,000 shares of our common stock vests over four years, with 25% of the shares vested on January 17, 2018 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through January 17, 2021, subject to continued service.

(2) This option to purchase 424,100 shares of our common stock vests over four years, with 25% of the shares vested on January 17, 2018 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through January 17, 2021, subject to continued service.

(3) This option to purchase 1,750,000 shares of our common stock vests over four years, in equal monthly installments through June 20, 2023, subject to continued service.

(4) This option to purchase 1,000,000 shares of our common stock vests over four years, with 25% of the shares vested on July 10, 2018 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through July 10, 2021, subject to continued service.

(5) This option to purchase 700,000 shares of our common stock vests over four years, in equal monthly installments through June 20, 2023, subject to continued service.
(6) This option to purchase 860,000 shares of our common stock vests over four years, with 25% of the shares vested on January 17, 2018 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through January 17, 2021, subject to continued service.
(7) This option to purchase 450,000 shares of our common stock vests over four years, in equal monthly installments through June 20, 2023, subject to continued service.
(8) This option to purchase 150,000 shares of our common stock vests over four years, with 25% of the shares vested on January 1, 2021 and 2.0833% of the original number of shares vesting thereafter in equal monthly installments through January 1, 2024, subject to continued service.

Stock Option and Other Compensation Plans

In this section we describe our 2017 Plan, our 2020 Plan and our 2020 Employee Stock Purchase Plan, or the 2020 ESPP. Prior to this offering, we granted awards to eligible participants under the 2017 Plan. Following the effectiveness of the 2020 Plan, we expect to grant awards to eligible participants from time to time only under the 2020 Plan.

Amended and Restated 2017 Equity Incentive Plan

The 2017 Equity Incentive Plan was initially approved by our board of directors and our stockholders in January 2017 and was subsequently amended and restated in June 2017. The Amended and Restated 2017 Equity Incentive Plan, which we refer to herein as the 2017 Plan, was further amended in January 2018, November 2018 and March 2019, in each case to increase the total number of shares reserved for issuance under the 2017 Plan. The 2017 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, awards of restricted stock, restricted stock units and other stock-based awards. Our employees, officers, directors, consultants and advisors are eligible to receive awards under the 2017 Plan; however, incentive stock options may only be granted to our employees. The type of award granted under the 2017 Plan and the terms of such award are set forth in the applicable award agreement. Pursuant to the terms of the 2017 Plan, our board of directors (or a committee delegated by our board of directors) administers the plan and, subject to any limitations in the plan, selects the recipients of awards and determines:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase or cancellation, measurement price, issue price and repurchase price (though the measurement price of stock appreciation rights must be at least equal to the fair market value of our common stock on the date of grant and the duration of such awards may not be in excess of ten years).

If our board of directors delegates authority to one or more of our officers to grant awards under the 2017 Plan, the officers will have the power to make awards to all of our employees, except executive officers (as such terms are defined in the 2017 Plan). Our board of directors will fix the terms of the awards to be granted by any such officer, the maximum number of shares subject to awards that such officer may grant, and the time period in which such awards may be granted.

The maximum number of shares of our common stock authorized for issuance under the 2017 Plan is 20,405,000 shares. Our board of directors may amend, suspend or terminate the 2017 Plan at any time, except that stockholder approval may be required to comply with applicable law or provisions under the 2017 Plan.

Effect of Certain Changes in Capitalization

Upon the occurrence 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 our common stock other than an ordinary cash dividend, under the terms of the 2017 Plan, we are required to equitably adjust (or make substitute awards, if applicable), in the manner determined by our board of directors:

- the number and class of securities available under the 2017 Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and the measurement price of each outstanding stock appreciation right;
- the number of shares subject to and the repurchase price per share subject to each outstanding restricted stock award or restricted stock unit award; and
- the share and per-share-related provisions and the purchase price, if any, of each outstanding other stock-based award.

Effect of Certain Corporate Transactions

Upon the occurrence of a merger or other reorganization event (as defined in the 2017 Plan), our board of directors may, on such terms as our board of directors determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the participant and us), take any one or more of the following actions pursuant to the 2017 Plan as to all or any (or any portion of) outstanding awards, other than awards of restricted stock:

- provide that outstanding awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);
- upon written notice to a participant, provide that all of the participant's unexercised awards will terminate immediately prior to the consummation of the reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of the notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon such reorganization event;
- in the event of a reorganization event pursuant to which holders of shares of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to participants with respect to each award held by a participant equal to (1) the number of shares of our 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 the reorganization event) multiplied by (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of the award;

- provide that, in connection with our liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise measurement or purchase price thereof and any applicable tax withholdings); or

- any combination of the foregoing.

Our board of directors is not obligated under the 2017 Plan to treat all awards, all awards held by a participant, or all awards of the same type, identically.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than our liquidation or dissolution, the repurchase and other rights with respect to outstanding restricted stock awards will continue for the benefit of the succeeding company and will, unless our board of directors determines otherwise, apply to the cash, securities, or other property which our common stock was converted into or exchanged for in the reorganization event in the same manner and to the same extent as they applied to the common stock subject to the restricted stock award. However, the board may provide for the termination or deemed satisfaction of such repurchase or other rights under the restricted stock award agreement or any other agreement between a participant and us, either initially or by amendment. Upon our liquidation or dissolution, except to the extent specifically provided to the contrary in the restricted stock award agreement or any other agreement between the plan participant and us, all restrictions and conditions on all restricted stock awards then outstanding will automatically be deemed terminated or satisfied.

Our board of directors may at any time provide that any award under the 2017 Plan will 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.

As of March 31, 2020, there were options to purchase 12,135,693 shares of our common stock outstanding under the 2017 Plan at a weighted average exercise price of $0.22 per share and 7,729,049 shares of our common stock were available for future issuance under the 2017 Plan. No further awards will be made under the 2017 Plan on or after the effective date of the 2020 Plan described below; however, awards outstanding under the 2017 Plan will continue to be governed by their existing terms.

2020 Stock Incentive Plan

We expect our board of directors to adopt and our stockholders to approve the 2020 Plan, which will become effective immediately prior to the effectiveness of the registration statement for this offering. The 2020 Plan provides for the grant of incentive stock options, non-qualified options, stock appreciation rights, restricted stock awards, restricted stock units and other stock-based awards. Upon effectiveness of the 2020 Plan, the number of shares of our common stock that will be reserved for issuance under the 2020 Plan will be the sum of: (1) ; plus (2) the number of shares (up to shares) equal to the sum of (x) the number of shares of our common stock reserved for issuance under the 2017 Plan that remain available for grant under the 2017 Plan immediately prior to the effectiveness of the registration statement for this offering and (y) the number of shares of our common stock subject to outstanding awards under the 2017 Plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right; plus (3) an annual increase, to be added on the first day of each fiscal year, beginning with the fiscal year ending December 31, 2021 and continuing until, and including, the fiscal year ending December 31, 2030, equal to the lowest of (i) shares of our common stock, (ii) % of the number of shares of our common stock outstanding on the first day of such fiscal year and (iii) an amount determined by our board of directors.

Our employees, officers, directors, consultants and advisors will be eligible to receive awards under the 2020 Plan. Incentive stock options, however, may only be granted to our employees.

Pursuant to the terms of the 2020 Plan, our board of directors (or a committee delegated by our board of directors) will administer the plan and, subject to any limitations in the plan, will select the recipients of awards and determine:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price (though the measurement price of stock appreciation rights must be at least equal to the fair market value of our common stock on the date of grant and the duration of such awards may not be in excess of ten years).

If our board of directors delegates authority to one or more of our officers to grant awards under the 2020 Plan, the officers will have the power to make awards to all of our employees, except executive officers. Our board of directors will fix the terms of the awards to be granted by any such officer, the maximum number of shares subject to awards that such officer may make, and the time period in which such awards may be granted.

Effect of Certain Changes in Capitalization

Upon the occurrence 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 our common stock other than an ordinary cash dividend, under the terms of the 2020 Plan, we are required to equitably adjust (or make substitute awards, if applicable), in the manner determined by our board of directors:

- the number and class of securities available under the 2020 Plan;
- the share counting rules under the 2020 Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and the measurement price of each outstanding stock appreciation right;
- the number of shares subject to, and the repurchase price per share subject to, each outstanding award of restricted stock and restricted stock units; and
- the share and per-share related provisions and the purchase price, if any, of each other stock-based award.

Effect of Certain Corporate Transactions

Upon the occurrence of a merger or other reorganization event (as defined in the 2020 Plan), our board of directors may, on such terms as our board determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the participant and us), take any one or more of the following actions pursuant to the 2020 Plan as to all or any (or any portion of) outstanding awards, other than awards of restricted stock:

- provide that outstanding awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);
- upon written notice to a participant, provide that all of the participant's unvested awards will be forfeited, and/or vested but unexercised awards will terminate, immediately prior to the consummation of the reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of the notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon such reorganization event;
- in the event of a reorganization event pursuant to which holders of shares of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to participants with respect to each award held by a participant equal to (1) the number of shares of our 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 (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award;
- provide that, in connection with our liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings); or
- any combination of the foregoing.

Our board of directors is not obligated under the 2020 Plan to treat all awards, all awards held by a participant, or all awards of the same type, identically.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than our liquidation or dissolution, our repurchase and other rights with respect to outstanding awards of restricted stock will continue for the benefit of the succeeding company and will, unless our board of directors determines otherwise, apply to the cash, securities, or other property which our common stock was converted into or exchanged for pursuant to the reorganization event in the same manner and to the same extent as they applied to the common stock subject to the restricted stock award. However, the board may provide for the termination or deemed satisfaction of such repurchase or other rights under the restricted stock award agreement or in any other agreement between a participant and us, either initially or by amendment. Upon our liquidation or dissolution, except to the extent specifically provided to the contrary in the restricted stock award agreement or any other agreement between the participant and us, all restrictions and conditions on all restricted stock awards then outstanding will automatically be deemed terminated or satisfied.

At any time, our board of directors may provide that any award under the 2020 Plan will become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part as the case may be.

No award may be granted under the 2020 Plan on or after the date that is ten years following the effectiveness of the registration statement related to this offering. Our board of directors may amend, suspend or terminate the 2020 Plan at any time, except that stockholder approval may be required to comply with applicable law or stock market requirements.

2020 Employee Stock Purchase Plan

We expect our board of directors to adopt and our stockholders to approve the 2020 ESPP, which will become effective immediately prior to the effectiveness of the registration statement for this offering. The 2020 ESPP will be administered by our board of directors or by a committee appointed by our board of directors. The 2020 ESPP initially provides participating employees with the opportunity to purchase up to an aggregate of shares of our common stock. The number of shares of our common stock reserved for issuance under the 2020 ESPP will automatically increase on the first day of each fiscal year, beginning with the fiscal year commencing on January 1, 2021 and continuing until, and including, the fiscal year commencing on January 1, 2031, in an amount equal to the lowest of (1) shares of our common stock, (2) % of the number of shares of our common stock outstanding on the first day of such fiscal year and (3) an amount determined by our board of directors.

All of our employees and employees of any designated subsidiary, as defined in the 2020 ESPP, are eligible to participate in the 2020 ESPP, provided that:

- such person is customarily employed by us or a designated subsidiary for more than 20 hours a week and for more than five months in a calendar year;
- such person has been employed by us or by a designated subsidiary for at least three months prior to enrolling in the 2020 ESPP; and
- such person was our employee or an employee of a designated subsidiary on the first day of the applicable offering period under the 2020 ESPP.

We retain the discretion to determine which eligible employees may participate in an offering under applicable regulations.

We expect to make one or more offerings to our eligible employees to purchase stock under the 2020 ESPP beginning at such time and on such dates as our board of directors may determine, or on the first business day thereafter. Each offering will consist of a six-month offering period during which payroll deductions will be made and held for the purchase of our common stock at the end of the offering period. Our board of directors or a committee designated by the board of directors may, at its discretion, choose a different period of not more than 12 months for offerings.

On each offering commencement date, each participant will be granted the right to purchase, on the last business day of the offering period, up to a number of shares of our common stock determined by multiplying $2,083 by the number of full months in the offering period and dividing that product by the closing price of our common stock on the first day of the offering period. No employee may be granted an option under the 2020 ESPP that permits the employee's rights to purchase shares under the 2020 ESPP and any other employee stock purchase plan of ours or of any of our subsidiaries to accrue at a rate that exceeds $25,000 of the fair market value of our common stock (determined as of the first day of each offering period) for each calendar year in which the option is outstanding. In addition, no employee may purchase shares of our common stock under the 2020 ESPP that would result in the employee owning 5% or more of the total combined voting power or value of our stock or the stock of any of our subsidiaries.

On the commencement date of each offering period, each eligible employee may authorize up to a maximum of 15% of his or her compensation to be deducted by us during the offering period. Each employee who continues to be a participant in the 2020 ESPP on the last business day of the offering period will be deemed to have exercised an option to purchase from us the number of whole shares of our common stock that his or her accumulated payroll deductions on such date will pay for, not in excess of the maximum numbers set forth above. Under the terms of the 2020 ESPP, the purchase price will be determined by our board of directors or the committee for each offering period and will be at least 85% of the applicable closing price of our common stock. If our board of directors or the committee does not make a determination of the purchase price, the purchase price will be 85% of the lesser of the closing price of our common stock on the first business day of the offering period or on the last business day of the offering period.

An employee may at any time prior to the close of business on the fifteenth business day prior to the end of an offering period, and for any reason, permanently withdraw from participating in an offering prior to the end of an offering period and permanently withdraw the balance accumulated in the employee's account. If an employee elects to discontinue his or her payroll deductions during an offering period but does not elect to withdraw his or her funds, funds previously deducted will be applied to the purchase of common stock at the end of the offering period. If a participating employee's employment ends before the last business day of an offering period, no additional payroll deductions will be taken and the balance in the employee's account will be paid to the employee.

We will be required to make equitable adjustments to the extent determined by our board of directors or a committee thereof to the number and class of securities available under the 2020 ESPP, the share limitations under the 2020 ESPP, and the purchase price for an offering period under the 2020 ESPP to reflect stock splits, reverse stock splits, stock dividends, recapitalizations, combinations of shares, reclassifications of shares, spin-offs and other similar changes in capitalization or events or any dividends or distributions to holders of our common stock other than ordinary cash dividends.

In connection with a merger or other reorganization event, as defined in the 2020 ESPP, our board of directors or a committee of our board of directors may take any one or more of the following actions as to outstanding options to purchase shares of our common stock under the 2020 ESPP on such terms as our board of directors or committee thereof determines:

- provide that options will be assumed, or substantially equivalent options will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof);

- upon written notice to employees, provide that all outstanding options will be terminated immediately prior to the consummation of such reorganization event and that all such outstanding options will become exercisable to the extent of accumulated payroll deductions as of a date specified by board of directors or committee thereof in such notice, which date will not be less than ten days preceding the effective date of the reorganization event;

- upon written notice to employees, provide that all outstanding options will be cancelled as of a date prior to the effective date of the reorganization event and that all accumulated payroll deductions will be returned to participating employees on such date;

- in the event of a reorganization event under the terms of which holders of our common stock will receive upon consummation thereof a cash payment for each share surrendered in the reorganization event, change the last day of the offering period to be the date of the consummation of the reorganization event and make or provide for a cash payment to each employee equal to (1) the cash payment for each share surrendered in the reorganization event times the number of shares of our common stock that the employee's accumulated payroll deductions as of immediately prior to the reorganization event could purchase at the applicable purchase price, where the cash

payment for each share surrendered in the reorganization event is treated as the fair market value of our common stock on the last day of the applicable offering period for purposes of determining the purchase price and where the number of shares that could be purchased is subject to the applicable limitations under the 2020 ESPP minus (2) the result of multiplying such number of shares by the purchase price; and/or

- provide that, in connection with our liquidation or dissolution, options will convert into the right to receive liquidation proceeds (net of the purchase price thereof).

Our board of directors may at any time, and from time to time, amend or suspend the 2020 ESPP or any portion of the 2020 ESPP. We will obtain stockholder approval for any amendment if such approval is required by Section 423 of the Internal Revenue Code of 1986. Further, our board of directors may not make any amendment that would cause the 2020 ESPP to fail to comply with Section 423 of the Internal Revenue Code of 1986. The 2020 ESPP may be terminated at any time by our board of directors. Upon termination, we will refund all amounts in the accounts of participating employees.

401(k) Plan

We maintain a defined contribution employee retirement plan for our employees, including our executive officers. The plan is intended to qualify as a tax-qualified 401(k) plan so that contributions to the 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan (except in the case of contributions under the 401(k) plan designated as Roth contributions). Under the 401(k) plan, each employee is fully vested in his or her deferred salary contributions and our discretionary match. Employee contributions are held and invested by the plan's trustee as directed by participants. The 401(k) plan provides us with the discretion to match employee contributions, but to date we have not provided any employer matching contributions.

Limitation of Liability and Indemnification

Our certificate of incorporation, which will become effective upon the closing of this offering, limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law, or the DGCL, and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- for voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the DGCL.

In addition, our certificate of incorporation, which will become effective upon the closing of this offering, provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers specified liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, we intend to enter into indemnification agreements with all of our executive officers and directors prior to the completion of this offering. These indemnification agreements may require us, among other things, to indemnify each such executive officer or director for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our executive officers or directors.

Some of our non-employee directors may, through their relationships with their employers, be insured or indemnified against specified liabilities incurred in their capacities as members of our board of directors.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, or the Securities Act, may be permitted to directors, executive officers or persons controlling us, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from the director or officer. It also is possible that the director or officer could amend or terminate the plan when not in possession of material, nonpublic information. In addition, our directors and executive officers may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

Director Compensation

The table below shows all compensation to our non-employee directors during the year ended December 31, 2019.

Name	Fees earned or paid in cash ($)	Option awards ($)(1)(2)	All other compensation ($)	Total ($)
Joseph Schlessinger(3)	—	100,992(4)	135,000(5)	235,992
Sarah Bhagat	—	—	—	—
Reinaldo Diaz	—	—	—	—
Martin Edwards	—	—	—	—
Robert Hopfner	—	—	—	—
Edward Mathers	—	—	—	—

(1) The amount reported in the "Option awards" column reflects the aggregate grant date fair value of stock options awarded during the year computed in accordance with the provisions of ASC 718. See Note 8 to our consolidated financial statements appearing at the end of this prospectus regarding assumptions underlying the valuation of equity awards. This amount reflects the accounting cost for this stock option and does not reflect the actual economic value that may be realized by the director upon the vesting of the stock option, the exercise of the stock option or the sale of the common stock underlying such stock option.

(2) As of December 31, 2019, the aggregate number of shares of our common stock subject to outstanding option awards for each non-employee director was as follows: Dr. Schlessinger, 575,000 shares; Dr. Bhagat, 0 shares; Mr. Diaz, 0 shares; Dr. Edwards, 0 shares; Dr. Hopfner, 0 shares and Mr. Mathers, 0 shares.

(3) Dr. Schlessinger resigned from our board of directors in May 2020.

(4) Represents an option to purchase 500,000 shares of our common stock granted on June 20, 2019, in respect of Dr. Schlessinger's consulting services for the year ended December 31, 2019. See the "Transactions with Related Persons" section of this prospectus for further information about our consulting agreement with Dr. Schlessinger.

(5) Represents consulting fees paid to Dr. Schlessinger in respect of his consulting services for the year ended December 31, 2019. See the "Transactions with Related Persons" section of this prospectus for further information about our consulting agreement with Dr. Schlessinger.

Prior to this offering, we did not have a formal non-employee director compensation policy. We have historically reimbursed our non-employee directors for reasonable travel and out-of-pocket expenses incurred in connection with attending board of director and committee meetings.

Mr. Bolte, one of our directors who also serves as our president and chief executive officer, does not receive any additional compensation for his service as a director. Mr. Bolte is one of our named executive officers and, accordingly, the compensation that we pay to Mr. Bolte is discussed above under "—Summary Compensation Table" and "—Narrative to Summary Compensation Table."

In , 2020, our board of directors approved a director compensation program that will become effective on the effective date of the registration statements of which this prospectus is a part. Under this director compensation program, we will pay our non-employee directors a cash retainer for service on the board of directors and for service on each committee on which the director is a member. The chair of the board and of each committee will receive higher retainers for such service. These fees are payable in arrears in four equal quarterly installments on the last day of each quarter, provided that the amount of such payment will be prorated for any portion of such quarter that the director is not serving on our board of directors and no fee will be payable in respect of any period prior to the completion of this offering. The fees paid to non-employee directors for service on the board of directors and for service on each committee of the board of directors on which the director is a member are as follows:

	Member Annual Fee	Chair Incremental Annual Fee
Board of Directors	$	$
Audit Committee	$	$
Compensation Committee	$	$
Nominating and Corporate Governance Committee	$	$

We also will continue to reimburse our non-employee directors for reasonable travel and other expenses incurred in connection with attending meetings of our board of directors and any committee of our board of directors on which he or she serves.

In addition, under our director compensation program to be effective on the effective date of the registration statement of which this prospectus is a part, each non-employee director will receive, upon his or her initial election or appointment to our board of directors, an option to purchase shares of our common stock under the 2020 Plan. Each of these options will vest as to of the shares of our common stock underlying such option on the first anniversary of the grant, with the remainder vesting in equal monthly installments until the anniversary of the date of grant, subject to the non-employee director's continued service as a director. Further, on the date of the first board meeting held after each annual meeting of stockholders, each non-employee director that has served on our board of directors for at least six months will receive, under the 2020 Plan, an option to purchase shares of our common stock under the 2020 Plan. Each of these options will vest , subject to the non-employee director's continued service as a director. All options issued to our non-employee directors under our director compensation program will be issued at exercise prices equal to the fair market value of our common stock on the date of grant and will become exercisable in full upon specified change in control events.

TRANSACTIONS WITH RELATED PERSONS

Since January 1, 2017, we have engaged in the following transactions in which the amounts involved exceeded $120,000 and any of our directors, executive officers or holders of more than 5% of our voting securities, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest. We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

Series A Convertible Preferred Stock Financing

From January 12, 2017 through May 26, 2017, we issued and sold an aggregate of 27,183,333 shares of our Series A Convertible Preferred Stock, of which (1) 27,083,333 shares of Series A Convertible Preferred Stock were sold at a price per share of $1.00 in cash, for an aggregate purchase price of $27,083,333 and (2) 100,000 shares of Series A Convertible Preferred Stock were issued upon conversion of 100,000 shares of Series A-1 Convertible Preferred Stock of Inozyme Pharma, LLC in connection with our conversion into a corporation in 2017.

The following table sets forth the aggregate number of shares of our Series A Convertible Preferred Stock that we issued and sold to our directors, executive officers and holders of more than 5% of our voting securities and their affiliates in this transaction and the aggregate amount of consideration for such shares:

Purchaser(1)	Date	Shares of Series A Convertible Preferred Stock	Aggregate Cash Purchase Price
Longitude Venture Partners III, L.P.	1/17/2017	8,333,333	$ 8,333,333
Entities affiliated with New Enterprise Associates (2)	1/17/2017	8,333,333	$ 8,333,333
Novo Holdings A/S	1/17/2017	8,333,333	$ 8,333,333
Joseph Schlessinger (3)	1/12/2017	50,000(5)	— (5)
	4/20/2017	27,778	$ 27,778
Steven Jungles Trust Dated Nov. 12, 2014 (4)	1/12/2017	50,000(5)	— (5)
	4/27/2017	27,778	$ 27,778

(1) See the “Principal Stockholders” section of this prospectus for additional information about shares held by these entities and individuals.
(2) Consists of (i) 8,283,333 shares held by New Enterprise Associates 15, L.P. and (ii) 50,000 shares held by NEA Ventures 2016, L.P.
(3) Joseph Schlessinger was a member of our board of directors from September 2015 to May 2020.
(4) Steven Jungles, our chief technical operations officer, is the trustee of the Steven Jungles Trust Dated Nov. 12, 2014.
(5) Represents 50,000 shares of Series A Convertible Preferred Stock acquired upon conversion of 50,000 shares of Series A-1 Convertible Preferred Stock, which shares of Series A-1 Convertible Preferred Stock were purchased for $50,000.

On November 8, 2018, we issued and sold an aggregate of 21,666,667 additional shares of our Series A Convertible Preferred Stock at a price per share of $1.00 in cash, for an aggregate purchase price of $21,666,667. The following table sets forth the aggregate number of shares of our Series A Convertible Preferred Stock that we issued and sold to our directors, executive officers and holders of more than 5% of our voting securities and their affiliates in this transaction and the aggregate amount of consideration for such shares:

Purchaser(1)	Shares of Series A Convertible Preferred Stock	Aggregate Cash Purchase Price
Longitude Venture Partners III, L.P.	6,666,667	$ 6,666,667
New Enterprise Associates 15, L.P.	6,666,667	$ 6,666,667
Novo Holdings A/S	6,666,667	$ 6,666,667
Aventis Inc.(2)	1,333,334	$ 1,333,334
Joseph Schlessinger(3)	22,222	$ 22,222
Steven Jungles Trust Dated Nov. 12, 2014(4)	22,222	$ 22,222

(1) See the "Principal Stockholders" section of this prospectus for additional information about shares held by these entities and individuals, other than Aventis Inc., which stockholder is no longer a holder of more than 5% of our voting securities.
(2) Aventis was a holder of more than 5% of our voting securities during this transaction, but is no longer a current holder of more than 5% of our voting securities.
(3) Joseph Schlessinger was a member of our board of directors from September 2015 to May 2020.
(4) Steven Jungles, our chief technical operations officer, is the trustee of the Steven Jungles Trust Dated Nov. 12, 2014.

Series A-2 Convertible Preferred Stock Financing

On November 9, 2018, we issued and sold an aggregate of 7,482,515 shares of our Series A-2 Convertible Preferred Stock at a price per share of $1.43 in cash, for an aggregate purchase price of $10,699,996. The following table sets forth the aggregate number of shares of our Series A-2 Convertible Preferred Stock that we sold to our holders of more than 5% of our voting securities and their affiliates in this transaction and the aggregate amount of consideration for such shares:

Purchaser(1)	Shares of Series A-2 Convertible Preferred Stock	Aggregate Purchase Price
Longitude Venture Partners III, L.P.	699,300	$ 999,999
New Enterprise Associates 15, L.P.	699,300	$ 999,999
Novo Holdings A/S	699,300	$ 999,999
Pivotal bioVenture Partners Fund I, L.P.	5,244,755	$7,500,000

(1) See the "Principal Stockholders" section of this prospectus for additional information about shares held by these entities.

On March 22, 2019, we issued and sold an aggregate of 16,083,916 additional shares of our Series A-2 Convertible Preferred Stock at a price per share of $1.43 in cash, for an aggregate purchase price of $23,000,000. The following table sets forth the aggregate number of shares of our Series A-2 Convertible Preferred Stock that we sold to our holders of more than 5% of our voting securities and their affiliates in this transaction and the aggregate purchase price for such shares:

Purchaser(1)	Shares of Series A-2 Convertible Preferred Stock	Aggregate Purchase Price
Sofinnova Venture Partners X, L.P.	5,944,056	$8,500,000
Entities affiliated with RA Capital Management, L.P.(2)	5,244,755	$7,500,000

(1) See the "Principal Stockholders" section of this prospectus for additional information about shares held by these entities.
(2) Consists of (i) 4,448,601 shares held by RA Capital Healthcare Fund, L.P. and (ii) 796,154 shares held by Blackwell Partners LLC—Series A.

Director Affiliations

Some of our directors are affiliated with and, prior to the closing of this offering, have served on our board of directors as representatives of entities which beneficially own or owned 5% or more of our voting securities, as indicated in the table below:

Directors	Principal Stockholder
Sarah Bhagat	Sofinnova Venture Partners X, L.P.
Reinaldo Diaz	Longitude Venture Partners III, L.P.
Martin Edwards	Novo Holdings A/S
Robert Hopfner	Pivotal bioVenture Partners Fund I, L.P.
Edward Mathers	New Enterprise Associates 15, L.P.

Consulting Agreement with Joseph Schlessinger

In January 2017, we entered into a consulting agreement with Joseph Schlessinger, pursuant to which Dr. Schlessinger serves on our scientific advisory board and provides certain services to us related to planning, organizing and developing our research and development activities, advising on research techniques, assisting in recruiting scientists and attending meetings with investors, collaborators and strategic partners. Dr. Schlessinger was a member of our board of directors from September 2015 to May 2020. The consulting agreement is in effect until January 2021, and will automatically renew for additional successive one-year periods, unless we or Dr. Schlessinger notify the other 30 days prior to the renewal date that the consulting agreement will not be extended. Under the consulting agreement, we have agreed to pay Dr. Schlessinger at a rate of $135,000 per year and reimburse Dr. Schlessinger for reasonable out-of-pocket expenses incurred in the performance of his services. As of March 31, 2020, we have paid Dr. Schlessinger an aggregate of $435,121 for his consulting services. In addition, in connection with his services as a consultant, we granted Dr. Schlessinger an option to purchase 75,000 shares at an exercise price per share of $0.13 in 2017 and an option to purchase 500,000 shares at an exercise price of $0.27 per share in 2019.

Relationship with Yale University and Demetrios Braddock

In 2017, we entered into a license agreement and a sponsored research agreement with Yale University, or Yale, a then holder of more than 5% of our outstanding voting securities. The license agreement relates to certain intellectual property developed in the course of research conducted under Yale auspices primarily by Demetrios Braddock, an associate professor of pathology at Yale, current member of our scientific advisory board and then holder of more than 5% of our outstanding voting securities. Pursuant to the license agreement, as partial upfront consideration, we paid to Yale approximately $60,000, which amount reflected unreimbursed patent expenses incurred by Yale prior to the date of the license agreement. In connection with our entry into the license agreement with Yale, we issued to Yale 1,000,000 shares of our Class 1 stock (which shares subsequently converted into 848,200 shares of our common stock upon our conversion into a corporation in 2017). We are responsible for paying Yale an annual license maintenance fee in varying amounts throughout the term ranging from the low tens of thousands of dollars to the high tens of thousands of dollars. As of the date hereof, we have paid an aggregate of $30,000 in license maintenance fees to Yale. We are also responsible for costs relating to the prosecution and maintenance of the licensed patents. As of the date hereof, we have paid to Yale approximately $463,000 for costs relating to the prosecution and maintenance of the licensed patents. We must also pay Yale a double-digit percentage of any consideration we receive from sublicensees. We are also required

to pay Yale milestone and royalty payments on net product sales. We have not made any milestone or royalty payments to Yale to date. As the inventor of the patents that we license from Yale, Dr. Braddock is entitled to receive a share of any royalties that we pay to Yale under the agreement with respect to the covered intellectual property, under Yale's policies.

The sponsored research agreement relates to ENPP research support provided to us by and under the supervision of Dr. Braddock for so long as he employed by Yale. Under the sponsored research agreement, as amended, with Yale, we agreed to pay to Yale an aggregate of $2.4 million over five years, ending in the fourth quarter of 2021, and as of the date hereof, we had paid Yale an aggregate of approximately $1.7 million. For a further description of our license agreement with Yale, including the payment, royalty and milestone obligations thereunder, and the sponsored research agreement, see "Business—Yale University License Agreement."

In addition, from January 1, 2017 through the date hereof, we made gifts in the aggregate amount of approximately $1.4 million to Yale, with the wish that Yale use such gifts to provide general support of Dr. Braddock's ENPP research program.

Consulting Agreement with Demetrios Braddock

In January 2017, we entered into a scientific advisory board consulting agreement with Dr. Braddock, an associate professor of pathology at Yale and then holder of more than 5% of our outstanding voting securities. Pursuant to the consulting agreement, Dr. Braddock serves on our scientific advisory board and provides certain services to us related to planning, organizing and developing our research and development activities, advising on research techniques, assisting in recruiting scientists and attending meetings with investors, collaborators, strategic partners and contract research or manufacturing organizations. The consulting agreement is in effect until January 2021, and will automatically renew for additional successive one-year periods, unless we or Dr. Braddock notify the other 30 days prior to the renewal date that the consulting agreement will not be extended. Pursuant to such consulting agreement, we have agreed to pay Dr. Braddock at a rate of $100,000 per year and reimburse Dr. Braddock for reasonable out-of-pocket expenses incurred in the performance of his services. If Dr. Braddock provides services under the consulting agreement for more than 35 days in any period of 12 consecutive months, we will pay Dr. Braddock an additional $2,860 for each such additional day of service. As of March 31, 2020, we have paid Dr. Braddock an aggregate of $322,312 for his consulting services. In addition, we granted Dr. Braddock an option to purchase 68,090 shares of our common stock, at an exercise price per share of $0.13 in 2017 and an option to purchase 100,000 shares of our common stock, at an exercise price per share of $0.27 in 2019.

Registration Rights

We are a party to an investor rights agreement with the holders of our convertible preferred stock, including our 5% stockholders and their affiliates and entities affiliated with some of our directors. This investor rights agreement provides these holders the right, subject to certain conditions, beginning six months following the completion of this offering, to demand that we file a registration statement or to request that their shares be covered by a registration statement that we are otherwise filing.

We are a party to a registration rights agreement with certain holders of our common stock, including some of our executive officers. The registration rights agreement provides these holders the right, subject to certain conditions, following the completion of the offering, to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing.

See the "Description of Capital Stock—Registration Rights" section for additional information regarding these registration rights.

Indemnification Agreements

Our certificate of incorporation, which will become effective upon the closing of this offering, provides that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. In addition, we intend to enter into indemnification agreements with all of our directors and executive officers prior to the completion of this offering. These indemnification agreements may require us, among other things, to indemnify each such director or executive officer for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our directors or executive officers.

Policies and Procedures for Related Person Transactions

Our board of directors intends to adopt written policies and procedures for the review of any transaction, arrangement or relationship in which our company is a participant, the amount involved exceeds $120,000 and one of our executive officers, directors, director nominees or 5% stockholders, or their immediate family members, each of whom we refer to as a "related person," has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our vice president, finance. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chair of the audit committee to review and, if deemed appropriate, approve proposed related person transactions that arise between committee meetings, subject to ratification by the committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Our audit committee may approve or ratify the transaction only if it determines that, under all of the circumstances, the transaction is in our best interests. Our audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, our board of directors has determined that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person's position as an executive officer of another entity, whether or not the person is also a director of the entity, that is a participant in the transaction where the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction and the amount involved in the transaction is less than the greater of $200,000 or 5% of the annual gross revenues of the company receiving payment under the transaction; and

- a transaction that is specifically contemplated by provisions of our certificate of incorporation or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by our compensation committee in the manner specified in the compensation committee's charter.

We did not have a written policy regarding the review and approval of related person transactions prior to this offering. Nevertheless, with respect to such transactions, it has been the practice of our board of directors to consider the nature of and business reasons for such transactions, how the terms of such transactions compared to those which might be obtained from unaffiliated third parties and whether such transactions were otherwise fair to and in the best interests of, or not contrary to, our best interests.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of March 31, 2020 by:

- each of our directors;
- each of our named executive officers;
- all of our directors and executive officers as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock.

The column entitled "Percentage of Shares Beneficially Owned—Before Offering" is based on a total of 81,438,689 shares of our common stock outstanding as of March 31, 2020, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing of this offering. The column entitled "Percentage of Shares Beneficially Owned—After Offering" is based on shares of our common stock to be outstanding after this offering, including the shares of our common stock that we are selling in this offering, but not including any additional shares issuable upon exercise of outstanding options.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days after March 31, 2020 are considered outstanding and beneficially owned by the person holding the options for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise set forth below, the address of each beneficial owner is c/o Inozyme Pharma, Inc., 321 Summer Street, Suite 400, Boston, Massachusetts 02210.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering (%)	After Offering (%)
5% Stockholders			
Longitude Venture Partners III, L.P.(1)	15,699,300	19.3	
Entities affiliated with New Enterprise Associates(2)	15,699,300	19.3	
Novo Holdings A/S(3)	15,699,300	19.3	
Sofinnova Venture Partners X, L.P.(4)	5,944,056	7.3	
Pivotal bioVenture Partners Fund I, L.P.(5)	5,244,755	6.4	
Entities affiliated with RA Capital Management, L.P.(6)	5,244,755	6.4	
Directors and Named Executive Officers			
Axel Bolte(7)	3,222,159	3.9	
Henric Bjarke(8)	868,749	1.1	
Steven Jungles(9)	933,928	1.1	
Sarah Bhagat(10)	—	—	
Reinaldo Diaz(11)	15,699,300	19.3	
Martin Edwards(12)	—	—	
Robert Hopfner(13)	5,244,755	6.4	
Edward Mathers(14)	—	—	
All current executive officers and directors as a group (10 persons)(15)	26,164,202	30.7	

* Less than 1%

(1) Consists of 15,699,300 shares of our common stock issuable upon conversion of our preferred stock held by Longitude Venture Partners III, L.P., or LVP III. Longitude Capital Partners, III, LLC, or LCP III, is the general partner of LVP III and may be deemed to have voting and investment power over our securities held by LVP III. Patrick G. Enright and Juliet Tammenoms Bakker are managing members of LCP III and may be deemed to share voting and investment power over the shares held by LVP III. Reinaldo M. Diaz is a member of LCP III and may be deemed to share voting and investment power over the shares held by LVP III. Each of these individuals disclaims beneficial ownership of such shares except to the extent of his or her pecuniary interest therein. The principal business address of Longitude Venture Partners III is 2740 Sand Hill, 2nd Floor, Road, Menlo Park, California 94025.

(2) Consists of (i) 15,649,300 shares of our common stock issuable upon conversion of our preferred stock held by New Enterprise Associates 15, L.P., or NEA 15, and (ii) 50,000 shares of our common stock issuable upon conversion of our preferred stock held by NEA Ventures 2016, L.P., or Ven 2016. The shares directly held by NEA 15 are indirectly held by each of (a) NEA Partners 15, L.P., or NEA Partners 15, the sole general partner of NEA 15, (b) NEA 15 GP, LLC, or NEA 15 LLC, the sole general partner of NEA Partners 15 and (c) each of the individual Managers, or the Managers, of NEA 15 LLC. The Managers of NEA 15 LLC are Forest Baskett, Anthony A. Florence, Jr., Mohamad Makhzoumi, Joshua Makower, Scott D. Sandell and Peter Sonsini. The shares directly held by Ven 2016 are indirectly held by Karen P. Welsh, the general partner of Ven 2016. NEA Partners 15, NEA 15 LLC and the Managers share voting and dispositive power with regard to the shares held by NEA 15. Karen P. Welsh shares voting and dispositive power with regard to the shares held by in Ven 2016. All indirect holders of the above referenced shares disclaim beneficial ownership of all applicable shares, except to the extent of their actual pecuniary interest therein. The principal business address of NEA 15 and NEA Ventures is 1954 Greenspring Drive, Suite 600, Timonium, MD 21093.

(3) Consists of 15,699,300 shares of our common stock issuable upon conversion of our preferred stock held by Novo Holdings A/S. Novo Holdings A/S is a Danish limited liability company, which is wholly owned by Novo Nordisk Foundation, or the Foundation. Novo Holdings A/S, through its board of directors, or the Novo Board, has the sole power to vote and dispose of the shares held by Novo Holdings A/S. The Novo Board may exercise shared voting and dispositive control over the shares held by Novo Holdings A/S with approval by a majority of the Novo Board. As such, no individual member of the Novo Board is deemed to hold any beneficial ownership or reportable pecuniary interest in the shares held by Novo Holdings A/S. The principal business address of Novo Holdings A/S is Tuborg Havnevej 19, 2900 Hellerup, Denmark.

(4) Consists of 5,944,056 shares of our common stock issuable upon conversion of our preferred stock held by Sofinnova Venture Partners X, L.P., or SVP X. Sofinnova Management X, L.L.C., or SM X, the general partner of SVP X, may be deemed to have sole voting power over the shares held by SVP X, and Dr. James I. Healy, Dr. Michael F. Powell and Dr. Maha Katabi, the managing members of SM X, may be deemed to have shared voting and dispositive power with respect to the shares held by SVP X. Such individuals disclaim beneficial ownership of such shares except to the extent of their pecuniary interest therein. The principal address of SVP X is c/o Sofinnova, 3000 Sand Hill Road, Building 4, Suite 250, Menlo Park, California 94025.

(5) Consists of 5,244,755 shares of our common stock issuable upon conversion of our preferred stock held by Pivotal bioVenture Partners Fund I, L.P. Pivotal bioVenture Partners Fund I G.P., L.P. is the general partner of Pivotal bioVenture Partners Fund I, L.P. and Pivotal bioVenture Partners Fund I U.G.P., Ltd is the general partner of Pivotal bioVenture Partners Fund I, G.P., L.P. Richard Coles, Peter Bisgaard and Vincent Sai Sing Cheung are directors of Pivotal bioVenture Partners Fund I U.G.P., Ltd., and may, along with Pivotal bioVenture Partners Fund I U.G.P., Ltd be deemed to have shared voting and investment control and power over the shares owned by Pivotal bioVenture Partners Fund I, L.P. The principal business address of Pivotal bioVenture Partners Fund I, L.P. is 501 Second Street, Suite 200, San Francisco, California 94107.

(6) Consists of (i) 4,448,601 shares of our common stock issuable upon conversion of our preferred stock held by RA Capital Healthcare Fund, L.P., or RA Capital and (ii) 796,154 shares of our common stock issuable upon conversion of our preferred stock held by Blackwell Partners LLC—Series A, or Blackwell. RA

Capital Management, L.P. is the investment manager for RA Capital and for Blackwell. The general partner of RA Capital Management, L.P. is RA Capital Management GP, LLC, of which Peter Kolchinsky and Rajeev Shah are managing members. RA Capital Management, L.P., RA Capital Management GP, LLC, Peter Kolchinsky and Rajeev Shah may be deemed to have voting and investment power over the shares held of record by RA Capital and Blackwell. RA Capital Management, L.P., RA Capital Management GP, LLC, Peter Kolchinsky and Rajeev Shah disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The address of the entities listed above is 200 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.

(7) Consists of (i) 1,426,036 shares of our common stock held by Mr. Bolte and (ii) 1,796,123 shares of our common stock underlying options held by Mr. Bolte that are exercisable as of March 31, 2020 or will become exercisable within 60 days after such date.

(8) Consists of 868,749 shares of our common stock underlying options held by Mr. Bjarke that are exercisable as of March 31, 2020 or will become exercisable within 60 days after such date.

(9) Consists of (i) 14,137 shares of our common stock held by Steven Jungles Trust Dated Nov. 12, 2014, of which Mr. Jungles is trustee, (ii) 100,000 shares of our common stock issuable upon conversion of our preferred stock held by Steven Jungles Trust Dated Nov. 12, 2014, of which Mr. Jungles is trustee and (iii) 819,791 shares of our common stock underlying options held by Mr. Jungles that are exercisable as of March 31, 2020 or will become exercisable within 60 days after such date.

(10) Dr. Bhagat is a partner at Sofinnova. Dr. Bhagat does not have voting or dispositive power over any of the shares held directly by SVP X referenced in footnote (4) above.

(11) Consists of the shares set forth in footnote (1) above. Mr. Diaz is a member of LCP III and may be deemed to share voting and investment power over the shares held by LVP III. Mr. Diaz disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

(12) Dr. Edwards is employed as a senior partner at Novo Holdings A/S. Dr. Edwards does not have voting or dispositive power over any of the shares held by Novo Holdings A/S referenced in footnote (3) above.

(13) Consists of the shares set forth in footnote (5) above. Dr. Hopfner is the managing partner of Pivotal bioVenture Partners Investment Advisor LLC and may be deemed to share voting and investment power over the shares held by Pivotal bioVenture Partners Fund I, L.P. Dr. Hopfner disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

(14) Mr. Mathers is a general partner at New Enterprise Associates, Inc. Mr. Mathers does not have voting or dispositive power over any of the shares directly held by NEA 15 or Ven 2016 referenced in footnote (2) above.

(15) Consists of (i) 1,440,173 shares of our common stock, (ii) 21,044,055 shares of our common stock issuable upon conversion of our preferred stock and (iii) 3,679,974 shares of our common stock underlying options that are exercisable as of March 31, 2020 or will become exercisable within 60 days after such date.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our certificate of incorporation and bylaws are summaries and are qualified by reference to the certificate of incorporation and the bylaws that will be in effect upon the closing of this offering. We will file copies of these documents with the SEC as exhibits to our registration statement of which this prospectus is a part. The description of the capital stock reflects changes to our capital structure that will occur upon the closing of this offering.

Upon the closing of this offering, our authorized capital stock will consist of shares of our common stock, par value $0.0001 per share, and shares of our preferred stock, par value $0.0001 per share, all of which preferred stock will be undesignated.

As of March 31, 2020, we had issued and outstanding:

- 9,022,258 shares of our common stock held by 11 stockholders of record;
- 48,850,000 shares of our Series A Convertible Preferred Stock held by 14 stockholders of record, convertible into 48,850,000 shares of our common stock; and
- 23,566,431 shares of our Series A-2 Convertible Preferred Stock held by 11 stockholders of record, convertible into 23,566,431 shares of our common stock.

Upon the closing of this offering, all of the outstanding shares of our preferred stock will automatically convert into an aggregate of 72,416,431 shares of our common stock.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Each election of directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of our common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of our common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any of our outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Preferred Stock

Under the terms of our certificate of incorporation that will become effective upon the closing of this offering, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could

discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

Options

As of March 31, 2020, options to purchase an aggregate of 12,135,693 shares of our common stock, at a weighted average exercise price of $0.22 per share, were outstanding.

Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions

Delaware Law

We are subject to Section 203 of the DGCL. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which it became an interested stockholder. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person. The restrictions contained in Section 203 are not applicable to any of our existing stockholders that will own 15% or more of our outstanding voting stock upon the closing of this offering.

Staggered Board; Removal of Directors

Our certificate of incorporation and our bylaws to be effective upon the closing of this offering divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation and our bylaws to be effective upon the closing of this offering provide that directors may be removed only for cause and only by the affirmative vote of the holders of 75% of our shares of capital stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and our bylaws to be effective upon the closing of this offering, 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. Furthermore, our certificate of incorporation to be effective upon the closing of this offering provides that the authorized number of directors may be changed only by the resolution of our board of directors. The classification of our board of directors and the limitations on the ability of our stockholders to remove directors, change the authorized number of directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Stockholder Action; Special Meeting of Stockholders; Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our certificate of incorporation and our bylaws to be effective upon the closing of this offering provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws to be effective upon the closing of this offering also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our board of directors. In addition, our bylaws to be effective upon the closing of this offering establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual

meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock because even if the third party acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Super-Majority Voting

The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws to be effective upon the closing of this offering may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

Exclusive Forum Selection

Our certificate of incorporation to be effective upon the closing of this offering provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) shall be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, other employees or stockholders to our company or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the DGCL or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (4) any action asserting a claim arising pursuant to any provision of our certificate of incorporation or bylaws (in each case, as they may be amended from time to time) or governed by the internal affairs doctrine.

This exclusive forum provision may limit the ability of our stockholders to bring a claim in a judicial forum that such stockholders find favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition and operating results.

Registration Rights

We have entered into a second amended and restated investor rights agreement, dated as of November 9, 2018, as amended, or the investor rights agreement, with holders of our convertible preferred stock and a registration rights agreement, dated June 1, 2016, or the registration rights agreement, with certain holders of our common stock.

Pursuant to the investor rights agreement, beginning 180 days following the closing of this offering, holders of a total of shares of our common stock issued upon conversion of our convertible preferred stock will have the right to require us to register these shares under the Securities Act under specified

circumstances and to participate in future registrations of securities by us under the circumstances described below. We refer to the shares with these registration rights as registrable securities. After registration pursuant to these rights, the registrable securities will become freely tradable without restriction under the Securities Act.

Pursuant to the registration rights agreement, holders of a total of shares of our common stock, including shares of our common stock issued upon conversion our convertible preferred stock and upon exercise of options held by certain founders, will have the right to, beginning one year after this offering, require us to register these shares under the Securities Act under specified circumstances and to, beginning upon the completion of this offering, participate in future registrations of securities by us under the circumstances described below. We refer to the shares with these registration rights as founder registrable securities. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act.

Demand and Form S-3 Registration Rights

Investor Rights Agreement

Beginning 180 days after this offering, subject to specified limitations set forth in the investor rights agreement, at any time, the holders of a majority of the outstanding registrable securities, including at least one of Pivotal bioVenture Partners Fund I, L.P., Sofinnova Venture Partners X, L.P. or RA Capital Healthcare Fund, L.P., may demand that we register all or a part of the registrable securities then outstanding under the Securities Act for purposes of a public offering having an aggregate offering price to the public, net of underwriting discounts and commissions, of not less than $10.0 million. We are not obligated to file a registration statement pursuant to this provision on more than two occasions.

In addition, subject to specified limitations set forth in the investor rights agreement, at any time after we become eligible to file a registration statement on Form S-3, the holders of any of the then outstanding registrable securities may request that we register such securities on a registration statement on Form S-3 so long as the holders propose to sell securities at an aggregate price to the public of at least $1.0 million. We are not obligated to file a registration statement pursuant to this provision on more than two occasions in any 12-month period.

Registration Rights Agreement

Beginning one year after this offering, subject to specified limitations set forth in the registration rights agreement, at any time, the holders of 30% of the then outstanding founder registrable securities under the registration rights agreement may demand that we register all or a portion of the founder registrable shares then outstanding under the Securities Act. We are not obligated to file a registration statement pursuant to this provision on more than two occasions, and we are not obligated to file a registration statement pursuant to this provision within 180 days of the effective date of any other registration statement that we may file (other than a registration statement on Form S-3).

In addition, subject to specified limitations set forth in the registration rights agreement, at any time after which we become eligible to file a registration statement on Form S-3, the holders of 30% of the then outstanding founder registrable securities may demand that we register all or a portion of their founder registrable securities on Form S-3 so long as the holders propose to sell securities at an aggregate price to the public of at least $1.0 million.

Incidental Registration Rights

Investor Rights Agreement

If, at any time after the closing of this offering, we propose to register for our own account any of our securities under the Securities Act, the holders of registrable securities will be entitled to notice of the

registration and, subject to specified exceptions, will be afforded an opportunity to register all or a portion of the registrable securities then held by them in that registration.

In the event that any registration in which the holders of registrable securities participate pursuant to our investor rights agreement is an underwritten public offering, we have agreed to enter into an underwriting agreement in usual and customary form and use our reasonable efforts to facilitate such offering.

Registration Rights Agreement

If, at any time after the closing of this offering, we propose to register for our own account any of our securities under the Securities Act, the holders of founder registrable securities will be entitled to notice of the registration and, subject to specified exceptions, have the right to require us to register all or a portion of the founder registrable securities then held by them in that registration.

In the event that any registration in which the holders of founder registrable securities participate pursuant to our registration rights agreement is an underwritten public offering, we have agreed to enter into an underwriting agreement in usual and customary form and use our reasonable efforts to facilitate such offering.

Expenses

Pursuant to the investor rights agreement, we are required to pay all registration expenses, including all registration, qualification and filing fees, FINRA fees and expenses, printing expenses, fees and disbursements of our counsel, fees and disbursements, not to exceed $35,000, of one counsel selected by the selling stockholders to represent the selling stockholders, state Blue Sky fees and expenses, and the expense of any regular or special audits incident to or required by any such registration, but excluding underwriting discounts and selling commissions applicable to the sale any registrable securities. Pursuant to the registration rights agreement, we are required to pay all registration expenses, including all registration, qualification and filings fees, printers' and accounting fees and the reasonable fees and disbursements of a single counsel for the selling stockholders requesting registration on Form S-3, but excluding any underwriting discounts and selling commissions applicable to the sale any founder registrable securities.

If a registration is withdrawn at the request of the stockholders initiating the registration under the investor rights agreement or the registration rights agreement, then such stockholders will bear the expenses of the registration, subject to certain specified exceptions.

The investor rights agreement and registration rights agreement contain customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us or any violation or alleged violation whether by action or inaction by us under the Securities Act, the Exchange Act, any state securities or Blue Sky law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities or Blue Sky law in connection with such registration statement or the qualification or compliance of the offering, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be .

Nasdaq Global Market

We intend to apply to have our common stock listed on the Nasdaq Global Market under the symbol "INZY."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and a liquid trading market for our common stock may not develop or be sustained after this offering. Future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options, or the anticipation of these sales, could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through sales of equity securities.

Upon the closing of this offering, we will have outstanding shares of our common stock, based on the shares of our common stock that were outstanding on March 31, 2020, after giving effect to the issuance of shares of our common stock in this offering, assuming no exercise by the underwriters of their option to purchase additional shares of our common stock, and the conversion of all outstanding shares of our preferred stock into an aggregate of 72,416,431 shares of our common stock upon the closing of this offering. Of these shares, all shares sold in this offering will be freely tradable without restriction under the Securities Act of 1933, as amended, or the Securities Act, unless purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining shares of our common stock will be "restricted securities" under Rule 144, and we expect that substantially all of these restricted securities will be subject to the 180-day lock-up period under the lock-up agreements as described below. These restricted securities may be sold in the public market upon release or waiver of any applicable lock-up agreements and only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

Rule 144

In general, under Rule 144, beginning 90 days after the effective date of the registration statement of which this prospectus forms a part, any person who is not our affiliate and has not been our affiliate at any time during the preceding three months and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell those shares without restriction, subject to the availability of current public information about us. In addition, under Rule 144, any such person who has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the closing of this offering without regard to whether current public information about us is available.

In general, under Rule 144, beginning 90 days after the effective date of the registration statement of which this prospectus forms a part, a person who is our affiliate or who was our affiliate at any time during the preceding three months and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; and
- the average weekly trading volume in our common stock on the Nasdaq Global Market during the four calendar weeks preceding the date of filing of a Notice of Proposed Sale of Securities Pursuant to Rule 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Upon waiver or expiration of the 180-day lock-up period described below, approximately shares of our common stock will be eligible for sale under Rule 144. We cannot estimate the number of shares of our common stock that our existing stockholders will elect to sell under Rule 144.

Rule 701

In general, under Rule 701 of the Securities Act, any of our employees, directors, officers, consultants or advisors, other than our affiliates, who purchased shares from us in connection with a qualified compensatory stock plan or other written agreement before the effective date of a registration statement under the Securities Act is eligible to resell these shares 90 days after such effective date in reliance on Rule 144, but without compliance with the various restrictions, including the availability of public information about us, holding period and volume limitations, contained in Rule 144. Substantially all Rule 701 shares are subject to lock-up agreements described below and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Lock-up Agreements

We, each of our executive officers and directors and the holders of a majority of our outstanding securities have agreed that, without the prior written consent of BofA Securities, Inc., Cowen and Company, LLC and Piper Sandler & Co., on behalf of the underwriters, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus:

- 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 of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock whether now owned or hereafter acquired or with respect to which such holder has or acquires the power of disposition, or the Lock-up Securities;

- enter into any swap or other agreement or transaction that transfers to another, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-up Securities, whether any such swap or transaction is to be settled by delivery of our common stock or such other securities, in cash or otherwise; or

- publicly disclose the intention to do any of the foregoing.

Each of our directors and executive officers and the holders of a majority of our outstanding securities have also agreed during such 180-period not to make any demand for, or exercise any right with respect to, or confidentially submit or cause to be filed or confidentially submitted any registration statement under the Securities Act with respect to, the registration of shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock, or warrants or other rights to purchase shares of our common stock or any such securities.

These agreements are subject to certain exceptions, as described in the section of this prospectus entitled “Underwriting.”

Registration Rights

Under our investor rights agreement, beginning 180 days after the closing of this offering, the holders of an aggregate of shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. Under our registration rights agreement, holders of an aggregate of shares of our common stock, including shares of our common stock issued upon conversion our preferred stock and upon exercise of options held by certain founders, will have the right to, beginning one year after this offering, require us to register these shares under the Securities Act under specified circumstances and to, beginning upon the completion of this offering, participate in future registrations of securities by us. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act. See the “Description of Capital Stock—Registration Rights” section for additional information regarding these registration rights.

Stock Options and Form S-8 Registration Statement

As of March 31, 2020, we had outstanding options to purchase an aggregate of 12,135,693 shares of our common stock under the 2017 Plan. Following this offering, we intend to file a registration statement on Form S-8 under the Securities Act to register all of the shares of our common stock subject to outstanding options and reserved for future options and other awards under the 2017 Plan, the 2020 Plan and the 2020 ESPP. See the "Executive Compensation—Stock Option and Other Compensation Plans" section for additional information regarding these plans. Accordingly, shares of our common stock registered under the registration statements will be available for sale in the open market, subject to Rule 144 volume limitations applicable to affiliates, and subject to any vesting restrictions and lock-up agreements applicable to these shares.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a discussion of material U.S. federal income and estate tax considerations relating to ownership and disposition of our common stock by a non-U.S. holder. For purposes of this discussion, the term "non-U.S. holder" means a beneficial owner (other than a partnership or other pass-through entity or arrangement) of our common stock that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or if the trust has a valid election in effect to be treated as a U.S. person under applicable U.S. Treasury Regulations.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, or the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings, and judicial decisions, 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 change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus. In addition, there can be no assurance that the IRS will not challenge one or more of the tax consequences described in this prospectus.

This discussion addresses only non-U.S. holders that hold shares of our common stock as a capital asset (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address the alternative minimum tax, the Medicare tax on net investment income 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:

- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities;
- pension plans;
- controlled foreign corporations;
- passive foreign investment companies;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security, or other integrated investment; and
- certain U.S. expatriates.

In addition, this discussion does not address the tax treatment of partnerships or persons who hold their common stock through partnerships or other pass-through entities or arrangements for U.S. federal income tax purposes. A partner in such a partnership that will hold our common stock should consult his, her, or its own tax advisor regarding the tax consequences of the purchase, ownership, and disposition of our common stock through a partnership or other pass-through entity, as applicable.

Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local, and non-U.S. income and other tax considerations of acquiring, holding, and disposing of our common stock.

Distributions

If we pay distributions on our common stock, those distributions 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 tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "—Gain on Disposition of Common Stock."

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate 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. A non-U.S. holder 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 successor form) and satisfy applicable certification and other requirements. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

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 is taxed on a net income basis at the same 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 may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Gain on Disposition of Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax on gain recognized on a disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder will be taxed on a net income basis at the same 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, an additional branch profits tax at a 30% rate, or such lower rate as may be specified by an applicable income tax treaty, may also apply;

- the non-U.S. holder is a nonresident alien present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements 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) on the net gain derived from the disposition, which may be offset by U.S.-source capital losses of the non-U.S. holder, if any, provided the non-U.S. holder timely files U.S. federal income tax returns with respect to such losses; or

- we are, or have been at any time during the five-year period preceding such 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 and the non-U.S. holder held no more than 5% of our outstanding common stock, directly or indirectly, 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. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the U.S. federal income tax rates applicable to United States persons (as defined in the Code) and potentially subject to a withholding tax on gross proceeds. Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" 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 believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rule described above.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on 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 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 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 under the heading "—Distributions," will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, 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 own 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. Rather, 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 timely filed with the IRS.

FATCA

Provisions of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally impose a 30% withholding tax on dividends on, and gross proceeds from the sale or other disposition of, our common stock if paid to a foreign entity unless (1) if the foreign entity is a "foreign financial institution," the foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (2) if the foreign entity is not a "foreign financial institution," the foreign entity identifies certain of its U.S. investors, or (3) the foreign entity is otherwise excepted under FATCA.

Withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA may have applied to payments of gross proceeds from a sale or other disposition of our common stock after December 31, 2018, under recently proposed U.S. Treasury Regulations, withholding on payments of gross proceeds is not required. Although such regulations are not final, applicable withholding agents may rely on the proposed regulations until final regulations are issued.

If withholding under FATCA is required on any payment related to our common stock, investors not otherwise subject to withholding (or that otherwise would be entitled to a reduced rate of withholding) on such payment may be required to seek a refund or credit from the IRS. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock and the entities through which they hold our common stock.

Federal Estate Tax

Common stock owned or treated as owned by an individual who is a non-U.S. holder (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

The preceding discussion of material U.S. federal tax considerations is for prospective investors' information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local, and non-U.S. tax consequences of purchasing, holding, and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

UNDERWRITING

BofA Securities, Inc., Cowen and Company, LLC and Piper Sandler & Co. are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of our common stock set forth opposite its name below.

Underwriter	Number of Shares
BofA Securities, Inc.	
Cowen and Company, LLC	
Piper Sandler & Co.	
Wedbush Securities Inc.	
Total	

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares 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 against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of $ per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

	Per Share	Without Option	With Option
Public offering price	$	$	$
Underwriting discount	$	$	$
Proceeds, before expenses, to us	$	$	$

The expenses of the offering, not including the underwriting discount, are estimated at $ and are payable by us. We have also agreed to reimburse the underwriters for their expenses relating to clearance of this offering with the Financial Industry Regulatory Authority, Inc. in an amount up to $.

Option to Purchase Additional Shares

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to additional shares at the public offering price, less the underwriting discount. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We, our executive officers and directors and our other existing security holders have agreed not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, for 180 days after the date of this prospectus without first obtaining the written consent of BofA Securities, Inc., Cowen and Company, LLC and Piper Sandler & Co. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, sell or contract to sell any common stock;
- sell any option or contract to purchase any common stock;
- purchase any option or contract to sell any common stock;
- grant any option, right or warrant to purchase of any common stock;
- otherwise dispose of or transfer any common stock;
- request or demand that we file or make a confidential submission of a registration statement related to the common stock;
- enter into any swap or other agreement or transaction that transfers, in whole or in part, the economic consequence of ownership of any common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise; or
- publicly disclose the intention to do any of the foregoing.

The exceptions permit our executive officers and directors and such security holders, subject to certain further restrictions, to:

- transfer the common stock (1) as a bona fide gift or gifts, including to a trust, educational or other entity established for charitable purposes, (2) to any trust for the direct or indirect benefit of the person or their immediate family, (3) as a distribution to the person's general or limited partners, members, stockholders, or other equity holders or trust beneficiaries, (4) to the person's affiliates or to any investment fund or other entity that, directly or indirectly controls or manages, is controlled or managed by, or is under common control or management with the person, (5) by will or intestacy, or (6) pursuant to a court order or settlement agreement related to the distribution of assets in connection with the dissolution of a marriage or civil union;
- exercise any stock options, warrants, or other rights to acquire shares of our common stock granted under our incentive plans described in this prospectus;
- transfer the common stock to us pursuant to agreements under which we exercise our option to repurchase such shares or exercise a right of first refusal with respect to transfers of such shares upon termination of the person's service to us;

- convert shares of our preferred stock described in this prospectus into shares of our common stock in connection with the closing of this offering;

- transfer the common stock to any nominee or custodian of a person or entity to whom a transfer or disposition would be permissible under the above exceptions; or

- transfer the common stock to a bona fide third party pursuant to a merger, tender offer or other similar transaction made to all holders of common stock and involving a Change of Control (as defined below) that has been approved by our board of directors.

For purposes of the above, ‘‘Change of Control’’ shall mean the transfer (whether by tender offer, merger, consolidation, or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons, of shares of our voting securities if, after such transfer, such person or group of affiliated persons would hold more than 50% of our outstanding voting securities.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

Nasdaq Global Market Listing

We expect the shares to be approved for listing on the Nasdaq Global Market, subject to notice of issuance, under the symbol “INZY.”

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- the valuation multiples of publicly traded companies that the representatives believe to be comparable to us;

- our financial information;

- the history of, and the prospects for, our company and the industry in which we compete;

- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues;

- the present state of our development; and

- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares described above. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares 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 granted to them. "Naked" short sales are sales in excess of such option. 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 our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' 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. The underwriters may conduct these transactions on the Nasdaq Global Market, in the over-the-counter market or otherwise.

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. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions. Affiliates of Cowen and Company, LLC own 3,146,853 shares of our Series A-2 Convertible Preferred Stock, which were acquired on March 22, 2019.

In addition, in the ordinary course of their business activities, the underwriters and 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 account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our

affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

European Economic Area and the United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom, each a Relevant State, no shares have been offered or will be offered pursuant to the initial offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation), except that offers of shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

a. to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

b. to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

c. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require the Issuer or any Manager to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

Each person in a Relevant State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with the Company and the Managers that it is a qualified investor within the meaning of the Prospectus Regulation.

In the case of any shares being offered to a financial intermediary as that term is used in Article 5(1) of the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer to the public other than their offer or resale in a Relevant State to qualified investors, in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

The Company, the underwriters and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

For the purposes of this provision, the expression an “offer to the public” in relation to any shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

References to the Prospectus Regulation includes, in relation to the UK, the Prospectus Regulation as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018.

The above selling restriction is in addition to any other selling restrictions set out below.

Notice to Prospective Investors in the United Kingdom

This document is for distribution only to persons who (i) have professional experience in matters relating to investments and who qualify as investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Financial Promotion Order, (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, as amended, or FSMA) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

Notice to Prospective Investors in Switzerland

The shares 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 document 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 document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority, or FINMA, and the offer of shares 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 shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or DFSA. This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or ASIC, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, or the Exempt Investors, who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) 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 which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, 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 to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Notice to Prospective Investors in Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the shares were not offered or sold or caused to be made the subject of an invitation for subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended

from time to time, or SFA, pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, 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 shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in 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

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(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 pursuant to an offer made under Section 275 of the SFA except:

(a) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(b) where no consideration is or will be given for the transfer;

(c) where the transfer is by operation of law; or

(d) as specified in Section 276(7) of the SFA.

Notice to Prospective Investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) 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 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.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the shares of our common stock offered hereby is being passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP. Shearman & Sterling LLP is acting as counsel for the underwriters in connection with this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements at December 31, 2018 and 2019, and for each of the two years in the period ended December 31, 2019, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements) appearing elsewhere herein. 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 under the Securities Act with respect to the shares of our common stock we are offering to sell. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement and the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference to such contract, agreement or document.

The SEC maintains an Internet website, which is located at http://www.sec.gov, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC's Internet website. Upon completion of this offering, we will be subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended, and we will file reports, proxy statements and other information with the SEC. We plan to fulfill our obligations with respect to such requirements by filing periodic reports and other information with the SEC. We intend to furnish our stockholders with annual reports containing financial statements certified by an independent registered public accounting firm. Our website address is www.inozyme.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

INOZYME PHARMA, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Inozyme Pharma, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Inozyme Pharma, Inc. (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' (deficit) equity 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, 2019 and 2018, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

The Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has recurring losses from operations and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our opinion is not modified with respect to this matter.

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 & Young LLP

We have served as the Company's auditor since 2017.

Boston, Massachusetts
May 8, 2020

INOZYME PHARMA, INC.
CONSOLIDATED BALANCE SHEETS
(amounts in thousands, except share and per share data)

	December 31,		Pro Forma December 31, 2019 (Unaudited)
	2019	2018	
Assets			
Current assets:			
Cash and cash equivalents	$ 31,605	$ 35,966	$ 31,605
Short-term investments	15,527	7,197	15,527
Prepaid expenses and other current assets	328	104	328
Total current assets	47,460	43,267	47,460
Property and equipment, net	298	242	298
Restricted cash	130	—	130
Other assets	56	34	56
Total assets	$ 47,944	$ 43,543	$ 47,944
Liabilities, convertible preferred stock and stockholders' (deficit) equity			
Current liabilities:			
Accounts payable	$ 901	$ 984	$ 901
Accrued expenses	2,335	1,405	2,335
Total current liabilities	3,236	2,389	3,236
Commitments (Note 7)			
Series A Convertible Preferred Stock, $0.0001 par value – 48,850,000 shares authorized; 48,850,000 shares issued and outstanding at December 31, 2019 and 2018; (Liquidation preference of $48.9 million at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	44,657	44,657	—
Series A-2 Convertible Preferred Stock, $0.0001 par value – 47,132,862 and 28,951,044 shares authorized at December 31, 2019 and 2018, respectively; 23,566,431 and 7,482,515 shares issued and outstanding at December 31, 2019 and 2018, respectively; (Liquidation preference of $33.7 million at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	33,270	10,372	—
Stockholders' (deficit) equity:			
Common Stock, $0.0001 par value 129,000,000 shares authorized; 9,002,260 and 8,482,000 shares issued and outstanding at December 31, 2019 and 2018, respectively; shares authorized, 81,418,691 shares issued and outstanding, pro forma (unaudited)	1	1	8
Additional paid in-capital	1,427	1,054	79,347
Accumulated other comprehensive income (loss)	5	(2)	5
Accumulated deficit	(34,652)	(14,928)	(34,652)
Total stockholders' (deficit) equity	(33,219)	(13,875)	44,708
Total liabilities, convertible preferred stock and stockholders' (deficit) equity	$ 47,944	$ 43,543	$ 47,944

The accompanying notes are an integral part of these consolidated financial statements.

INOZYME PHARMA, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(amounts in thousands, except share and per share data)

	Year Ended December 31,	
	2019	2018
Operating expenses:		
Research and development	$ 16,220	$ 8,099
General and administrative	4,586	3,494
Total operating expenses	20,806	11,593
Loss from operations	(20,806)	(11,593)
Other income (expense):		
Interest income	1,106	284
Other expense, net	(24)	(29)
Change in fair value of preferred stock tranche liability	—	4,374
Other income (expense), net	1,082	4,629
Net loss	$ (19,724)	$ (6,964)
Other comprehensive income:		
Unrealized gains on available-for-sale securities	7	16
Total other comprehensive income	7	16
Comprehensive loss	$ (19,717)	$ (6,948)
Net loss attributable to common stockholders—basic and diluted	$ (19,724)	$ (6,964)
Net loss per share attributable to common stockholders—basic and diluted	$ (2.23)	$ (0.89)
Weighted-average common shares outstanding—basic and diluted	8,841,657	7,851,950
Pro forma net loss per share attributable to common stockholders—basic and diluted (unaudited) (Note 10)	$ (0.25)	
Pro forma weighted-average common shares outstanding—basic and diluted (unaudited) (Note 10)	77,732,846	

The accompanying notes are an integral part of these consolidated financial statements.

INOZYME PHARMA, INC.
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' (DEFICIT) EQUITY
(amounts in thousands, except share data)

	Series A Convertible Preferred Stock		Series A-2 Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' (Deficit) Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2017	27,183,333	$ 22,912	—	$ —	6,679,575	$ 1	$ 610	$ (18)	$ (7,964)	$ (7,371)
Vesting of restricted stock	—	—	—	—	1,802,425	—	—	—	—	—
Issuance of tranche 2 of Series A Convertible Preferred Stock, net of issuance costs of $0.1 million	21,666,667	21,573	—	—	—	—	—	—	—	—
Settlement of Series A Convertible Preferred tranche liability	—	172	—	—	—	—	—	—	—	—
Issuance of Series A-2 Convertible Preferred Stock, net of issuance costs of $0.3 million	—	—	7,482,515	10,372	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	444	—	—	444
Comprehensive income:										
Unrealized gain on investments	—	—	—	—	—	—	—	16	—	16
Net loss	—	—	—	—	—	—	—	—	(6,964)	(6,964)
Balance at December 31, 2018	48,850,000	$ 44,657	7,482,515	$ 10,372	8,482,000	$ 1	$ 1,054	$ (2)	$ (14,928)	$ (13,875)
Issuance of Series A-2 Convertible Preferred Stock, net of issuance costs of $0.1 million	—	—	16,083,916	22,898	—	—	—	—		—
Stock-based compensation	—	—	—	—	—	—	301	—	—	301
Exercise of stock options	—	—	—	—	520,260	—	72	—	—	72
Comprehensive income:										
Unrealized gain on investments	—	—	—	—	—	—	—	7	—	7
Net loss	—	—	—	—	—	—	—	—	(19,724)	(19,724)
Balance at December 31, 2019	48,850,000	44,657	23,566,431	33,270	9,002,260	1	1,427	5	(34,652)	(33,219)
Conversion of convertible preferred stock into common stock (unaudited)	(48,850,000)	(44,657)	(23,566,431)	(33,270)	72,416,431	7	77,920	—	—	77,927
Pro forma balance at December 31, 2019 (unaudited)	—	$ —	—	$ —	81,418,691	$ 8	$ 79,347	$ 5	$ (34,652)	$ 44,708

The accompanying notes are an integral part of these consolidated financial statements.

INOZYME PHARMA, INC.
CONSOLIDATED STATEMENTS OF CASH FLOW
(amounts in thousands)

	Year Ended December 31,	
	2019	**2018**
Operating activities		
Net loss	$(19,724)	$ (6,964)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	83	26
Stock-based compensation expense	301	444
Accretion on marketable securities	(71)	—
Change in fair value of Series A Convertible Preferred Stock tranche liability	—	(4,374)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(224)	(55)
Accounts payable	(83)	802
Accrued expenses	930	718
Other assets	(22)	(34)
Net cash used in operating activities	(18,810)	(9,437)
Investing activities		
Purchases of marketable securities	(24,662)	(13,568)
Maturities of marketable securities	16,410	22,833
Purchases of property and equipment	(139)	(259)
Net cash (used in) provided by investing activities	(8,391)	9,006
Financing activities		
Proceeds from issuance of Series A Convertible Preferred Stock and tranche right, net of issuance costs	—	21,573
Proceeds from issuance of Series A-2 Convertible Preferred Stock, net of issuance costs	22,898	10,372
Proceeds from exercise of stock options	72	—
Net cash provided by financing activities	22,970	31,945
Net (decrease) increase in cash, cash equivalents and restricted cash	(4,231)	31,514
Cash, cash equivalents and restricted cash at beginning of period	35,966	4,452
Cash, cash equivalents and restricted cash at end of period	$ 31,735	$ 35,966
Supplemental cash flow information:		
Cash and cash equivalents	31,605	35,966
Restricted cash	130	—
Cash, cash equivalents and restricted cash at end of period	$ 31,735	$ 35,966

The accompanying notes are an integral part of these consolidated financial statement.

INOZYME PHARMA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

Inozyme Pharma, Inc. (the "Company") is a rare disease biopharmaceutical company developing novel therapeutics for the treatment of diseases of abnormal mineralization impacting the vasculature, soft tissue and skeleton.

The Company is pursuing the development of potentially first-in-class therapeutics to address the underlying causes of these debilitating diseases. It is well established that two genes, ENPP1 and ABCC6, play key roles in a critical mineralization pathway and that defects in these genes lead to abnormal mineralization. The Company is initially focused on developing a novel therapy to treat rare genetic diseases of ENPP1 and ABCC6 deficiencies.

The Company's lead product candidate, INZ-701, is a soluble, recombinant, or genetically engineered, fusion protein that is designed to correct a defect in the mineralization pathway caused by ENPP1 and ABCC6 deficiencies. This pathway is central to the regulation of calcium deposition throughout the body and is further associated with neointimal proliferation, or the overgrowth of smooth muscle cells inside blood vessels.

Liquidity, Capital Resources, and Going Concern

Since the Company's incorporation in 2017 and through December 31, 2019, the Company has devoted substantially all of its efforts to raising capital, building infrastructure, developing intellectual property and conducting research and development. The Company incurred a net loss of $19.7 million in the year ended December 31, 2019 and had an accumulated deficit of $34.7 million as of December 31, 2019. The Company had cash and cash equivalents of $31.6 million and short-term investments of $15.5 million as of December 31, 2019.

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. As a result, there is a significant degree of uncertainty as to how long the Company's existing cash, cash equivalents and short-term investments will be sufficient to fund its operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern for a period of at least one year from the date the Company's 2019 consolidated financial statements are issued.

Management expects to seek additional funds through equity financings; however, it may be unable to do so and may implement cost reduction strategies, which may include amending, delaying, limiting, reducing, or terminating planned activities related to its product candidate. As a result of these factors, there is substantial doubt about the Company's ability to continue as a going concern within one year after the date these financial statements are issued.

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

2. Summary of Significant Accounting Policies and Basis of Presentation

Basis of Presentation

The Company's 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 authoritative U.S. GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB"). All adjustments considered necessary for a fair presentation have been included.

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 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, stock-based compensation expense, inclusive of the measurement of fair value of equity instruments, and the valuation of the Series A Convertible Preferred Stock tranche liability. 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.

Concentration of Credit Risk and Off-Balance Sheet Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits and limits its exposure to credit risk by placing its cash with high credit quality financial institutions. The Company's short-term investments are comprised of corporate debt securities, U.S. Treasury and agency securities and commercial paper of corporations. The Company mitigates credit risk by maintaining a diversified portfolio and limiting the amount of investment exposure as to institution, maturity and investment type.

The Company has no significant off-balance sheet risk such as foreign exchange contracts, option contracts, or other foreign hedging arrangements.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents include cash in readily available checking accounts, money market accounts and certain marketable securities. Cash is carried at cost, which approximates its fair value. Cash equivalents are carried at fair market value.

Restricted Cash

Restricted cash is composed of amounts held on deposit related to the Company's lease arrangements. Restricted cash is classified as either current or non-current based on the terms of the underlying lease arrangement.

Short-Term Investments

The Company classifies its investments as available-for-sale and records such assets at estimated fair value on the balance sheet, with unrealized gains and losses on debt securities, if any, reported as a component of accumulated other comprehensive income (loss). Realized gains and losses are calculated based on the specific-identification method and are recorded as interest income. There have been no realized gains and losses for the years ended December 31, 2019 and 2018. The Company periodically reviews available-for-sale securities for other-than-temporary declines in fair value below the cost basis whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the related asset. The estimated useful lives of the Company's property and equipment are as follows:

	Estimated Useful Life (In Years)
Laboratory equipment and manufacturing equipment	5
Computer equipment	3
Leasehold improvements	Lesser of asset life or lease term

Impairment of Long-lived Assets

As required under the applicable accounting guidance, the Company periodically reevaluates the original assumptions and rationale used in the establishment of the carrying value and estimated lives of all of its long-lived assets, including property and equipment. The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. An impairment loss is recognized when the total of estimated future undiscounted cash flows, expected to result from the use of the asset and its eventual disposition, are less than its carrying amount. Impairment, if any, would be assessed using discounted cash flows or other appropriate measures of fair value. There were no impairments for the years ended December 31, 2019 and 2018.

Accrued Research and Development Costs

The Company records accrued liabilities for estimated costs of research and development activities conducted by service providers for sponsored research, preclinical studies and contract manufacturing activities. The Company records the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced and includes these costs in accrued expenses in the accompanying consolidated balance sheets and within research and development expense in the accompanying consolidated statements of operations and comprehensive loss.

The Company accrues for these costs based on factors such as estimates of the work completed and in accordance with agreements established with service providers. The Company makes significant judgments and estimates in determining the accrued liabilities balance in each reporting period. As actual costs become known, the Company adjusts its accrued liabilities. The Company has not experienced any material differences between accrued costs and actual costs incurred since its inception.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development costs consist of direct and indirect internal costs related to specific projects as well as fees paid to other entities that conduct certain research and development activities on the Company's behalf.

Patent Costs

The Company expenses all costs as incurred in connection with patent applications, including direct application fees, and the legal and consulting expenses related to making such applications, and such costs are included in general and administrative expenses within the Company's consolidated statements of operations and comprehensive loss.

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of employee and non-employee stock option grants and restricted stock awards recognized over the requisite service period of the awards on a straight-line basis. 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 accounted for stock options to non-employees using the fair value approach through December 31, 2017. On January 1, 2018, the Company early adopted ASU 2018-07, *Compensation – Stock Compensation* ("ASU 2018-07"), and as a result, the fair value of unvested non-employee awards as of December 31, 2017 is no longer remeasured each reporting period. All future expense related to these awards will be recorded based on the fair value measured as of December 31, 2017, the last period prior to the adoption of ASU 2018-07.

The Company's equity incentive plan allows for the issuance of restricted stock awards to employees and non-employees that may be subject to vesting. The unvested shares of any restricted stock awards are held in escrow as the stock award vests or until award holder termination, whichever occurs first. In the event of a termination, the Company has the right of repurchase, at its option, the portion of unvested stock awards from the terminated award holder. For all unvested stock awards whereby the award recipient has transferred cash to the Company at the grant date, a liability is established related to the cash received for the unvested portion of the stock awards, which represents the Company's obligation if all award holders were to be terminated.

Convertible Preferred Stock

The Company's convertible preferred stock is classified as temporary equity and excluded from stockholders' (deficit) equity as the potential redemption of such stock is outside the Company's control. The carrying value of the convertible preferred stock is not adjusted to the redemption value until the contingent redemption events are considered to be probable of occurring.

Income Taxes

Income taxes have been accounted for using the asset and liability method. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates applicable to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. A valuation allowance against deferred tax assets is recorded if, based upon the weight of all available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for income taxes in accordance with authoritative accounting guidance which states the impact of an uncertain income tax position is recognized at the largest amount that is "more likely than not" to be sustained upon audit by the relevant taxing authority. There are no unrecognized tax benefits included in the Company's consolidated balance sheets at December 31, 2019 or 2018. The Company's policy is to

recognize interest and penalties related to income tax matters in income tax expense. The Company has not recognized any interest or penalties in its consolidated statements of operations and comprehensive loss since inception.

Leases

The Company categorizes leases at their inception as either operating or capital leases. On certain lease arrangements, the Company may receive rent holidays or other incentives. The Company recognizes lease costs on a straight-line basis once control of the space is obtained, without regard to deferred payment terms, such as rent holidays, that defer the commencement date of required payments or escalating payment amounts. The difference between required lease payments and rent expense has been recorded in accrued expenses in the accompanying consolidated balance sheets. Additionally, incentives received are treated as a reduction of costs over the term of the agreement, as they are considered an inseparable part of the lease agreement.

Unaudited Pro Forma Information

Upon the closing of the Company's qualified initial public offering ("IPO"), all of the outstanding shares of convertible preferred stock will automatically convert into shares of common stock. The accompanying unaudited pro forma consolidated balance sheet and consolidated statements of convertible preferred stock and stockholders' (deficit) equity as of December 31, 2019 have been prepared as if the Company's qualified IPO had occurred on December 31, 2019 to give effect to the automatic conversion of all outstanding shares of convertible preferred stock into 72,416,431 shares of common stock. The conversion of the Company's convertible preferred stock is based on the conversion ratios associated with each series of convertible preferred stock. The shares of common stock expected to be issued and the proceeds expected to be received in the qualified IPO are excluded from such pro forma financial information.

The unaudited pro forma basic and diluted weighted-average common shares outstanding used in the calculation of unaudited pro forma basic and diluted net loss per share attributable to common stockholders for the year ended December 31, 2019 have been prepared to give effect, upon a qualified IPO, to the automatic conversion of all outstanding shares of convertible preferred stock into common stock as if the qualified IPO had occurred on the later of the beginning of each period or the issuance date of the convertible preferred stock.

Deferred Issuance Costs

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in-process equity financings, including the qualified IPO, as deferred issuance costs until such financings are consummated. After consummation of such an equity financing, these costs are recorded as a reduction of the proceeds generated as a result of the offering. Should the planned equity financing be abandoned, the deferred issuance costs, currently recorded within Other assets, will be expensed immediately as a charge to operating expenses in the consolidated statements of operations and comprehensive loss.

Net Loss Per Share

The Company follows the two-class method when computing net loss allocable to common securities per share as the Company has issued shares that meet the definition of participating securities, which include shares of: (i) Series A Convertible Preferred Stock; (ii) Series A-2 Convertible Preferred Stock. The two-class method requires a portion of net income to be allocated to the participating securities to determine net loss allocable to the common securities. During periods of loss, there is no allocation required under the two-class method since the participating securities do not have a contractual obligation to fund the losses of the Company.

Basic net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, without consideration for potentially dilutive securities. Diluted net loss per share is computed

by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock and potentially dilutive securities outstanding during the period determined using the treasury-stock and if-converted methods. For purposes of the diluted net loss per share calculation, diluted net loss per share attributable to common stockholders is calculated by dividing net loss attributable to common stockholders by the weighted average number of common shares outstanding after giving consideration to the dilutive effect of convertible preferred stock, restricted common stock, restricted stock units and stock options that are outstanding during the period. The Company has generated a net loss in all periods presented, therefore the basic and diluted net loss per share attributable to common stockholders are the same as the inclusion of the potentially dilutive securities would be anti-dilutive.

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.

Comprehensive Loss

The Company is required to report all components of comprehensive loss, including net loss, in the financial statements in the period in which they are recognized. Comprehensive loss is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss is comprised of the Company's net loss and unrealized gains and losses on the Company's short-term investments and is presented within a continuous consolidated statements of operations and comprehensive loss.

Foreign Currency Transactions

The Company maintains a foreign bank account denominated in euros. Foreign currency transactions are initially recorded by the Company using the exchange rates prevailing at the date of the transaction. At the balance sheet date, cash denominated in foreign currencies are translated at the period-end rates of exchange. Exchange gains and losses arising from the translation of foreign currency items are included in other income (expense), net in the consolidated statements of operations and comprehensive loss. The Company recognized net foreign exchange losses of $23 thousand and $11 thousand for the years ended December 31, 2019 and 2018, respectively.

Fair Value Measurements

The Company categorizes its assets and liabilities measured at fair value in accordance with the authoritative accounting guidance that establishes a consistent framework for measuring fair value, and expands disclosures for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as the exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1- Unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities;

- Level 2- Quoted prices for similar assets and liabilities in active markets, quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability; or

- Level 3- Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

Subsequent Events

The Company has considered events or transactions that occur after the balance sheet date of December 31, 2019, but prior to the issuance of the consolidated financial statements for potential recognition or disclosure in the consolidated financial statements. Subsequent events have been evaluated through May 8, 2020, the date the annual consolidated financial statements were issued for potential recognition or disclosure in the consolidated financial statements. Refer to Note 13.

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 revenues 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.

3. Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that are adopted by the Company 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 its financial position or results of operations upon adoption.

Recently Issued and Adopted Accounting Standards

In the first quarter of the year ending December 31, 2018, the Company made an accounting policy election to recognize forfeitures as they occur upon adoption of guidance per ASU No. 2016-09, *Compensation—Stock Compensation* ("ASU 2016-09"). The adoption of ASU 2016-09 did not have a material impact on the Company's consolidated financial statements. In reporting periods prior to the year ending December 31, 2018, the Company estimated forfeitures at the time of grant and revised the forfeitures rate in subsequent periods as necessary if actual forfeitures differed from estimates.

Recently Issued Accounting Standards Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, *Leases ("Topic 842")*. The new standard establishes a right-of-use model and requires a lessee to recognize on the balance sheet a right-of-use asset and corresponding

lease liability for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the consolidated statements of operations and comprehensive loss. The new standard is effective for annual periods beginning after December 15, 2020 for nonpublic entities, with early adoption permitted. The Company is currently assessing the impact that adopting this standard will have on its consolidated financial statements.

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 and its subsequent related updates establish a new forward-looking "expected loss model" that requires entities to estimate current expected credit losses on accounts receivable and financial instruments by using all practical and relevant information. The new standard and its subsequent related updates are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. The Company is currently assessing the impact that adopting this standard will have on its consolidated financial statements, but does not expect it to be material.

In August 2018, the FASB issued ASU No. 2018-13, *Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*, which modifies certain disclosure requirements on fair value measurements. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019. The Company does not anticipate a material impact on its consolidated financial statements as a result of the adoption of ASU 2018-13.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes – Simplifying the Accounting for Income Taxes*. The new guidance simplifies the accounting for income taxes by removing several exceptions in the current standard and adding guidance to reduce complexity in certain areas, such as requiring that an entity reflect the effect of an enacted change in tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date. The new standard is effective for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022 for all non-public entities, with early adoption permitted. The Company is currently assessing the impact that adopting this standard will have on its consolidated financial statements.

4. Balance Sheet Details

Short-term investments consisted of the following at December 31, 2019 and 2018 (dollar amounts in thousands):

		December 31, 2019			
Description	Maturity	Amortized Costs	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper	1 year or less	$ 10,903	$ 3	$ —	$ 10,906
Corporate debt securities	1 year or less	3,370	1	—	3,371
U.S. Treasury securities	1 year or less	1,249	1	—	1,250
		$ 15,522	$ 5	$ —	$ 15,527

Description	Maturity	December 31, 2018 Amortized Costs	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper	1 year or less	$ 3,980	$ —	$ (1)	$ 3,979
Corporate debt securities	1 year or less	2,720	—	(1)	2,719
U.S. Treasury securities	1 year or less	499	—	—	499
		$ 7,199	—	$ (2)	$ 7,197

The Company did not have any short-term investments with unrealized losses at December 31, 2019. Total short-term investments at December 31, 2018 with unrealized losses were as follows (dollar amounts in thousands):

Description	Maturity	Fair Value	Unrealized Losses
Commercial paper	1 year or less	$ 3,979	$ (1)
Corporate debt securities	1 year or less	2,222	(1)
		$ 6,201	$ (2)

The Company concluded that the net declines in market value of available-for-sale securities were temporary in nature and did not consider any of the investments to be other-than-temporarily impaired. In accordance with its investment policy, the Company invests in investment grade securities with high credit quality issuers, and generally limits the amount of credit exposure to any one issuer. The Company evaluates securities for other-than-temporary impairment at the end of each reporting period. Impairment is evaluated considering numerous factors, and their relative significance varies depending on the situation. Factors considered include the length of time and extent to which fair value has been less than the cost basis, the financial condition and near-term prospects of the issuer, and the Company's intent and ability to hold the investment to allow for an anticipated recovery in fair value. Furthermore, the aggregate of individual unrealized losses that had been outstanding for 12 months or less was not significant as of December 31, 2019 and December 31, 2018. The Company does not intend to sell these investments and it is not more likely than not that the Company will be required to sell the investments before a recovery of their amortized cost bases, which may be maturity. The Company also believes that it will be able to collect both principal and interest amounts due at maturity.

Prepaid expenses and other current assets consisted of the following (dollar amounts in thousands):

	At December 31, 2019	2018
Interest receivable	$ 104	$ 31
Prepaid insurance	47	21
Prepaid taxes	42	—
Prepaid other	135	52
Total	$ 328	$ 104

Property and equipment consisted of the following (dollar amounts in thousands):

	At December 31, 2019	2018
Laboratory equipment and manufacturing equipment	$ 308	$ 187
Computer equipment	53	35
Leasehold improvements	47	47
	408	269
Less accumulated depreciation	(110)	(27)
Total	$ 298	$ 242

Depreciation expense for the years ended December 31, 2019 and 2018 totaled $83 thousand and $26 thousand, respectively.

Accrued expenses consisted of the following (dollar amounts in thousands):

	At December 31,	
	2019	2018
Payroll and related liabilities	$ 861	$ 829
Professional fees	268	452
Research and development costs	1,086	82
Other	120	42
Total	$ 2,335	$ 1,405

5. Fair Value Measurement

At December 31, 2019 and 2018, the Company valued its short-term investments at fair value on a recurring basis. The carrying amounts of the Company's other financial instruments, which include prepaid expenses and other assets, accounts payable and accrued expenses approximate their fair values at December 31, 2019 and 2018, primarily due to their short-term nature.

The convertible preferred stock tranche liability represents the fair value of the Tranche Right discussed in Note 8. The fair value of Tranche Right is based on significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy. The Company's valuation of the Tranche Right utilized the Black-Scholes option-pricing model, which incorporates assumptions and estimates.

Assets and liabilities measured at fair value on a recurring basis as of December 31, 2019 and 2018 are as follows (dollar amounts in thousands):

		Fair Value Measurements at Reporting Date Using		
Description	December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds (included in cash and cash equivalents)	$ 11,709	$ 11,709	$ —	$ —
Commercial paper (included in cash and cash equivalents)	1,992	—	1,992	—
Corporate debt securities (included in cash and cash equivalents)	2,189	—	2,189	—
Commercial paper	10,906	—	10,906	—
Corporate debt securities	3,371	—	3,371	—
U.S. Treasury securities	1,250	1,250	—	—
Total assets	$ 31,417	$ 12,959	$ 18,458	$ —

Description	December 31, 2018	Fair Value Measurements at Reporting Date Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds (included in cash and cash equivalents)	$ 2,980	$ 2,980	$ —	$ —
Commercial paper (included in cash and cash equivalents)	497	—	497	—
Corporate debt securities (included in cash and cash equivalents)	500	—	500	—
Commercial paper	3,979	—	3,979	—
Corporate debt securities	2,719	—	2,719	—
U.S. Treasury securities	499	499	—	—
Total assets	$ 11,174	$ 3,479	$ 7,695	$ —

The Tranche Right was classified as a liability and initially recorded at fair value. The liability was subject to revaluation at each balance sheet date prior to the exercise or expiration of the Tranche Right. The change in the preferred stock tranche liability consists of the re-measurement gains or losses associated with changes in the fair value of the Tranche Right. Upon issuance of the additional shares of Series A Convertible Preferred Stock in November 2018, the Tranche Right was settled. The following table provides a roll forward of the aggregate fair value of the Company's Tranche Right (dollar amounts in thousands):

Balance at December 31, 2017	$ 4,546
Change in fair value of Tranche Right upon re-measurement included in other income (expense), net	(4,374)
Closing of Tranche Right, upon settlement	(172)
Balance at December 31, 2018	$ —

6. License and Sponsored Research Agreements

In January 2017, the Company entered into a license agreement with Yale University ("Yale"), which was amended in May 2020, under which the Company licensed certain intellectual property related to ectonucleotide pyrophosphatase/phosphodiesterase enzymes, that is the basis for the Company's INZ-701 development program. Pursuant to the license agreement, as partial upfront consideration, the Company made a payment of approximately $60,000 to Yale, which amount reflected unreimbursed patent expenses incurred by Yale prior to the date of the license agreement. The Company is responsible for paying Yale an annual license maintenance fee in varying amounts throughout the term ranging from the low tens of thousands of dollars to the high tens of thousands of dollars. As of December 31, 2019, the Company incurred a total of $30,000 in license maintenance fees to Yale. The Company is required to pay Yale $3.0 million, based on the achievement of a specified net product sales milestone or specified development and commercialization milestones, for each therapeutic and prophylactic licensed product developed. In addition, the Company is required to pay Yale an amount in the several hundreds of thousands of dollars, based on the achievement of a specified net product sales milestone or specified development and commercialization milestones, for each diagnostic licensed product developed. While the agreement remains in effect, the Company is required to pay Yale low single-digit percentage royalties on aggregate worldwide net sales of certain licensed products. Yale is guaranteed a minimum royalty payment amount (ranging in dollar amounts from the mid six figures to low seven figures) for each year after the first sale of a therapeutic or prophylactic licensed product that results in net sales. Yale is guaranteed a minimum royalty payment amount (ranging from the low tens of thousands of dollars to the mid tens of thousands of dollars) for each year after the first sale of a diagnostic licensed product that results in net sales. The Company must also pay Yale a double-digit percentage of certain types of income it receives from

sublicensees. The Company is also responsible for costs relating to the prosecution and maintenance of the licensed patents. Finally, subject to certain conditions, all payments due by the Company to Yale will be tripled following any patent challenge or challenge to a claim by Yale that a product is a licensed product under the agreement made by the Company against Yale if Yale prevails in such challenge.

In January 2017, the Company also entered into a corporate sponsored research agreement with Yale (the "Sponsored Research Agreement"), which was amended in February 2019, under which the Company agreed to provide research support funding in the aggregate amount of $2.4 million over the five year period from contract inception through 2021. The Company recorded research and development expenses associated with this arrangement of $0.5 million and $0.4 million in the years ended December 31, 2019 and 2018, respectively.

The Company recorded research and development expense associated with other arrangements with Yale of $0.3 million and $0.4 million in the years ended December 31, 2019 and 2018, respectively.

7. Commitments

On April 1, 2017, the Company entered into a non-cancellable sub-lease agreement for office space for a term of six months. The lease was amended in September 2017 for an additional six-month period and expired in May 2018.

In March 2018, the Company entered into a non-cancelable agreement to lease 2,605 square feet of office space in Boston, Massachusetts. The lease term for this office space began in June 2018 and ended in April 2020. Additionally, in July 2018, the Company entered into an agreement to lease 3,560 square feet of laboratory space in Boston, Massachusetts. The lease term for this laboratory space began in July 2018 and ends in July 2020. The Company provided security deposits to the landlords totaling $34 thousand, which is included in prepaid expenses and other current assets in the accompanying balance sheet as of December 31, 2019.

In December 2019, the Company entered into a non-cancelable agreement to lease 8,599 square feet of office space in Boston, Massachusetts. The lease term for this office space began in May 2020 and is expected to end in the second half of 2025. The Company shall have one option to extend the term of this lease for a term of five years. The Company provided a security deposit to the landlord in the form of a letter of credit totaling $130 thousand. The cash collateralizing the letter of credit is included in restricted cash in the accompanying balance sheet as of December 31, 2019.

Total future minimum commitments under leases are as follows (dollar amount in thousands):

	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Future minimum operating lease payments	$ 512	$1,056	$1,099	$ 327	$2,994

Rent expense recognized on a straight-line basis over the terms of the leases for the years ended December 31, 2019 and 2018 was $449 thousand and $291 thousand, respectively.

8. Convertible Preferred Stock and Stockholders' Equity

Convertible Preferred Stock

Series A Convertible Preferred Stock

In January 2017, the Company converted from a Delaware limited liability company to a Delaware corporation. In connection with the conversion to a corporation, 100,000 shares of Series A Convertible Preferred Stock of the Company were issued to stockholders upon conversion of all outstanding shares of Series A-1 Convertible Preferred Stock of the limited liability company.

In January 2017, the Company entered into a Series A Convertible Preferred Stock Purchase Agreement, which was amended and restated in April 2017 (as amended and restated, the "Series A Agreement") under which it agreed to issue up to 48,750,000 shares of Series A Convertible Preferred Stock in two tranches. Under the Series A Agreement, the Company initially issued 27,083,333 shares at a price of $1.00 per share for net cash proceeds of $26.7 million from January 2017 through May 2017. The Series A Agreement provided for a second tranche closing based on the achievement of a defined milestone (the "Tranche Right"), pursuant to which the investors were required to purchase, and the Company to sell, an additional 21,666,667 shares of Series A Convertible Preferred Stock at a price of $1.00 per share upon the achievement of the defined milestone or waiver of the milestone. In November 2018, the Company sold 21,666,667 shares of Series A Convertible Preferred Stock at a price of $1.00 per share for proceeds of $21.6 million.

The Company concluded that the Tranche Right met the definition of a freestanding financial instrument, as the Tranche Right was legally detachable and separately exercisable from the Series A Convertible Preferred Stock. Therefore, the Company allocated the net proceeds between the Tranche Right and the Series A Convertible Preferred Stock. Since the Series A Convertible Preferred Stock was contingently redeemable upon the occurrence of a deemed liquidation event, the Tranche Right was classified as a liability under ASC Topic 480 *Distinguishing Liabilities from Equity*, and was initially recorded at fair value. The estimated fair value of the Tranche Right was determined using a Black-Scholes option-pricing model. The Tranche Right was remeasured at fair value at each reporting period prior to settlement in November 2018, with changes in fair value recorded as a component of other income (expense) in the accompanying consolidated statements of operations and comprehensive loss. The fair value of the Tranche Right was reclassified to Series A Convertible Preferred Stock at settlement.

Series A-2 Convertible Preferred Stock

In November 2018, the Company entered into a Series A-2 Convertible Preferred Stock Purchase Agreement, which was amended in March 2019 (as so amended, the "Series A-2 Agreement") under which it agreed to issue up to 47,132,862 shares of Series A-2 Convertible Preferred Stock. Under the Series A-2 Agreement, the Company initially issued 7,482,515 shares at a price of $1.43 per share for net proceeds of $10.4 million in November 2018 and 16,083,916 shares at a price of $1.43 per share for net proceeds of $22.9 million in March 2019. The A-2 Agreement provides for a second tranche closing based on the achievement of a defined milestone (the "A-2 Tranche Right"), pursuant to which the investors are required to purchase, and the Company to sell, an additional 23,566,431 shares of Series A-2 Convertible Preferred Stock at $1.43 per share upon the achievement of the defined milestone (the "Milestone"), or earlier upon board and requisite stockholder approval to waive such requirement. The Company concluded that the Series A-2 Tranche Right did not meet the definition of a freestanding financial instrument as it was not legally detachable, and therefore did not require separate accounting.

The rights, preferences and privileges of the Company's Series A and Series A-2 Convertible Preferred Stock are as follows (dollar amounts in thousands):

	December 31, 2019				
Description	Preferred stock authorized	Preferred stock issued and outstanding	Carrying value	Liquidation preference	Common stock issuable upon conversion
Series A Convertible Preferred Stock	48,850,000	48,850,000	$ 44,657	$ 48,850	48,850,000
Series A-2 Convertible Preferred Stock	47,132,862	23,566,431	33,270	33,700	23,566,431
	95,982,862	72,416,431	$ 77,927	$ 82,550	72,416,431

Description	December 31, 2018				
	Preferred stock authorized	Preferred stock issued and outstanding	Carrying value	Liquidation preference	Common stock issuable upon conversion
Series A Convertible Preferred Stock	48,850,000	48,850,000	$ 44,657	$ 48,850	48,850,000
Series A-2 Convertible Preferred Stock	28,951,044	7,482,515	10,372	10,700	7,482,515
	77,801,044	56,332,515	$ 55,029	$ 59,550	56,332,515

Dividends

The holders of Series A Convertible Preferred Stock and Series A-2 Convertible Preferred Stock (collectively referred to herein as "Series A Preferred") are entitled to receive dividends at the amount of dividend per share of common stock multiplied by the number of shares of common stock into which one share of Series A Preferred is convertible at the close of business on the record date for such dividend when and if declared by the board of directors, and in preference and in priority to any dividends on common stock. There have been no dividends declared by the board of directors as of December 31, 2019.

Liquidation

Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, asset transfer or acquisition (a "Liquidation Event"), before any distribution or payment shall be made to the holders of any common stock, the holders of Series A Preferred shall be entitled to be paid, on a pari passu basis, out of the assets of the Company legally available for distribution (or the consideration received by the Company or its stockholders in an acquisition) for each share of Series A Preferred held by them, an amount per share of the applicable series of Series A Preferred equal to the applicable original issue price of the security ($1.00 for the Series A Convertible Preferred Stock and $1.43 for the Series A-2 Convertible Preferred Stock) plus all declared and unpaid dividends on each such series of Series A Preferred. If, upon any such Liquidation Event, the assets of the Company are insufficient to make payment in full to all holders of Series A Preferred of the liquidation preference, then such assets (or consideration) shall be distributed among the holders of Series A Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

After the payment of the full liquidation preference of the Series A Preferred as set forth above, the remaining assets of the Company legally available for distribution in such Liquidation Event (or the consideration received by the Company or its stockholders in an acquisition) shall be distributed ratably to the holders of common stock and Series A Preferred, with each share of Series A Preferred being treated as if converted into the number of shares of common stock into which such share was convertible on the date of the Liquidation Event.

Optional Conversion

Each share of Series A Preferred may, at the option of the holder, be converted at any time after the Conversion Trigger Date (as defined below), into such number of shares of common stock as is determined by dividing the applicable original issue price of such series of convertible preferred stock by the applicable conversion price of such series of convertible preferred stock. As of December 31, 2019, the conversion price of the Series A Convertible Preferred Stock is $1.00 and the conversion price of the Series A-2 Convertible Preferred Stock is $1.43.

The Conversion Trigger Date means the earliest to occur of: (i) the business day following the second tranche closing under the Series A-2 Agreement, (ii) the business day following the closing of a qualified financing with respect to the Series A Preferred held by purchasers who participate in such qualified financing, (iii) September 30, 2021, (iv) the date upon which the Company and the stockholders determine that the Milestone will not occur, and (v) the day following the date on which the Company's board or stockholders adopt a resolution to effect a Liquidation Event.

Automatic Conversion

Each share of Series A Preferred is automatically convertible into such number of shares of common stock as is determined by dividing the applicable original issue price of such series of convertible preferred stock by the applicable conversion price of such series of convertible preferred stock, (a) at any time upon the written consent of the holders of a majority of the outstanding shares of the Series A Preferred, including at least one of Pivotal bioVenture Partners Fund I, Sofinnova Venture Partners X, L.P. or RA Capital Healthcare Fund, L.P. or (b) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, in which the per share price is at least $3.00 (as appropriately adjusted for any stock dividends, combinations, splits, recapitalizations and the like) and the gross cash proceeds to the Company are at least $50 million.

If an investor fails to fund its second tranche closing commitment, then such investor's shares of Series A Preferred will automatically convert into common stock at a conversion price of five times the conversion price in effect at that time.

Voting

The holders of each share of Series A Preferred are entitled to vote on all matters submitted to stockholders for a vote. Each holder shall have the right to cast the number of votes equal to the number of shares of common stock into which such holder's shares of Series A Preferred would be converted. The holders of Series A Preferred will vote together with the holders of Common Stock as a single class, on an as-converted basis, unless otherwise specified by law or the Certificate of Incorporation.

Anti-Dilution

The conversion prices of the Series A Convertible Preferred Stock and the Series A-2 Convertible Preferred Stock will be subject to a broad-based weighted average anti-dilution adjustment in the event that the Company issues additional equity securities (other than the issuance of shares reserved under any employee incentive plan and certain other customary exceptions) at a purchase price less than the applicable conversion price.

Stock Incentive Plan

In January 2017, the Company's board and stockholders adopted the 2017 Equity Incentive Plan, which was amended and restated in July 2017, (as so amended and restated, the "Plan"), which initially reserved 5,018,000 shares of common stock for issuance to employees, directors, advisors and consultants. The Plan allows for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards and other stock awards. Recipients of stock options or stock appreciation rights shall be eligible to purchase shares of the Company's common stock at an exercise price equal to the estimated fair market value of such stock on the date of grant.

The maximum term of options granted under the Plan is ten years, and stock options typically vest over a four year period. The board may assign vesting terms to the stock options grants as deemed appropriate. The Company also has the right of refusal to purchase any proposed disposition of shares issued under the Plan. The Company has the option to repurchase any unvested shares underlying restricted stock awards at the original purchase price upon any voluntary or involuntary termination. At the discretion of the board, unvested shares held by employees may accelerate vesting in the event of a change of control of the Company unless assumed or substituted by the acquirer or surviving entity.

As of December 31, 2019, the maximum number of shares of common stock reserved for issuance under the Plan was 20,405,000. As of December 31, 2019, 7,663,006 shares of common stock remain available for future issuance under the Plan.

The following table summarizes stock option activity under the Plan at December 31, 2019 and 2018:

	Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2017	4,669,980	$ 0.13	9.19	$ 141
Granted	1,477,120	0.17		
Exercised	—	—		
Forfeited	—	—		
Outstanding at December 31, 2018	6,147,100	$ 0.14	8.43	$ 678
Granted	7,541,300	0.27		
Exercised	(520,260)	(0.14)		
Forfeited	(946,406)	0.20		
Outstanding at December 31, 2019	12,221,734	$ 0.22	8.81	$ 668
Exercisable at December 31, 2019	3,895,875	$ 0.15	7.91	$ 452

The Company granted options to non-employees to purchase 625,000 and 92,120 shares of common stock during 2019 and 2018, respectively, which are included in the table above.

The weighted-average grant date fair values of options granted in the years ended December 31, 2019 and 2018 were $0.20 and $0.13 per share, respectively.

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock. The total intrinsic values of options exercised during the years ended December 31, 2019, and 2018, was $31 thousand and zero, respectively.

For purposes of calculating stock-based compensation, the Company estimates the fair value of stock options using the Black-Scholes option-pricing model. This model incorporates various assumptions, including the expected volatility, expected term, and interest rates. The underlying assumptions used to value stock options granted to employees using the Black-Scholes option-pricing were as follows:

	Years Ended December 31,	
	2019	2018
Risk-free interest rate range	1.63% to 2.51%	2.35% to 3.01%
Dividend yield	0%	0%
Expected term of options (years)	6.78	6.08
Volatility rate range	85.02% to 103.76%	100.11% to 103.48%

The fair value of stock options granted to non-employees in 2019 and 2018 was estimated using the following assumptions:

	Years Ended December 31,	
	2019	2018
Risk-free interest rate range	1.84%	2.18%
Dividend yield	0%	0%
Expected term of options (years)	10	10
Volatility rate range	85.02%	101.87%

Expected Term—The expected term of stock options represents the weighted average period the stock options are expected to be outstanding. The Company uses the simplified method for estimating the expected term, which calculates the expected term as the average time-to-vesting and the contractual life of the options for stock options issued to employees. The expected term for options granted to non-employees is based on the contractual life of the options.

Expected Volatility—Due to the Company's limited operating history and lack of company-specific historical or implied volatility, the expected volatility assumption was determined by examining the historical volatilities of a group of industry peers whose share prices are publicly available. The Company expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price.

Risk-Free Interest Rate—The risk-free rate assumption is based on U.S. Treasury instruments, the terms of which were consistent with the expected term of the Company's stock options.

Expected Dividend—The expected dividend assumption is based on the Company's history and expectation of dividend payouts. The Company has not paid and does not intend to pay dividends.

Fair Value of Common Stock —Historically, the fair value of the shares of common stock underlying the stock options has been the responsibility of and is determined by the Company's board of directors. Because there was no public market for the Company's common stock, the board of directors determined fair value of common stock at the time of grant of the option by considering a number of objective and subjective factors including independent third-party valuations of the Company's common stock, sales of convertible preferred stock to unrelated third parties, operating and financial performance, the lack of liquidity of capital stock and the general and industry specific economic outlook, among other factors.

For the year ended December 31, 2019, the Company recognized employee-related stock-based compensation expense of $0.3 million; and non-employee stock-based compensation expense of $28 thousand. For the year ended December 31, 2018, the Company recognized employee-related stock-based compensation expense of $0.2 million and nonemployee stock-based compensation expense of $0.2 million. The fair value of shares vested for the years ended December 31, 2019 and 2018 was $0.3 million and $0.2 million, respectively.

The total unrecognized compensation cost related to outstanding employee awards as of December 31, 2019 was $1.4 million, and is expected to be recognized over a weighted-average period of 3.1 years. The total unrecognized compensation cost related to outstanding non-employee awards as of December 31, 2019 was $0.1 million, and is expected to be recognized over a weighted-average period of 2.2 years.

Restricted Common Stock

For restricted stock awards granted to employees and to non-employees, the fair value on the date of grant is recognized as stock-based compensation expense ratably over the period in which the restrictions lapse. These shares of restricted common stock generally have vesting terms which require the holders to provide ongoing service to the Company and typically vest over a three-year term. If any of these individuals cease to provide services for the Company prior to vesting, the Company has the right to repurchase any unvested shares of restricted common stock at the price paid by the holder. The consideration received for the shares of restricted common stock is initially included in other liabilities on the balance sheet and is reclassified into stockholder's (deficit) equity as the shares vest. Stock-based compensation associated with the issuance of restricted stock for the years ended December 31, 2019 and 2018 of none and $0.3 million, respectively, are included in total stock-based compensation expense.

The following table summarizes the restricted stock award activity for the year ended December 31, 2018:

	Shares	Weighted-Average Purchase Price
Unvested at December 31, 2017	1,802,425	$ 0.0001
Granted	—	—
Vested	1,802,425	—
Cancelled	—	—
Unvested at December 31, 2018	—	$ 0.0001

9. Income Taxes

On December 22, 2017, the Tax Cuts and Jobs Act ("TCJA") was enacted, reducing the U.S. federal corporate income tax rate from 35% to 21%, among other changes. As a result of the enacted law, the Company was required to revalue deferred tax assets and liabilities existing as of December 31, 2017 from the 34% federal rate in effect through the end of 2017 to the new 21% rate. The Company has recognized the impact of the TCJA in these financial statements and related disclosures. Due to the complexities involved in accounting for the enactment of the TCJA, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118"), which allowed a registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Although not a registrant, the Company has applied the provisions of SAB 118 to its financial statements. As of December 31, 2018, the Company had finalized its analysis of the impact of the TCJA and noted there were no material changes from its initial assessment.

During the years ended December 31, 2019 and 2018, the Company recorded net losses of $19.7 million and $7.0 million, respectively. Since it maintains a full valuation allowance on its deferred tax assets, the Company did not record an income tax benefit for the years ended December 31, 2019 and 2018.

Deferred taxes are recognized for temporary differences between the bases of assets and liabilities for financial statement and income tax purposes. The significant components of the Company's deferred tax assets as of December 31, 2019 and 2018 are comprised of the following (dollar amounts in thousands):

	December 31,	
	2019	2018
Deferred tax assets:		
Net operating losses	$ 8,584	$ 3,916
Research and development credits	429	237
Stock options	20	226
Accrued expenses	222	17
Other	77	80
Gross deferred tax assets	9,332	4,476
Less: Valuation allowance	(9,320)	(4,474)
Net deferred tax assets	12	2
Deferred tax liabilities:		
Depreciation of fixed assets	(12)	(2)
Gross deferred tax liabilities	(12)	(2)
Non-current net deferred tax assets (liabilities)	$ —	$ —

As of December 31, 2019, the Company had gross federal operating loss carryforwards of $34.6 million, which may be available to offset future taxable income. Of the federal operating loss carryforwards, $5.9 million begin to expire in 2037 and $28.7 million do not expire. As of December 31, 2019, the Company had gross state operating loss carryforwards of $21.6 million, which may be available to offset future taxable income and which begin to expire in 2037.

As required by FASB ASC Topic 740, *Income Taxes*, management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and research and development credits. Under the applicable accounting standards, management has considered the Company's history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, a full valuation allowance of $9.3 million and $4.5 million has been established at December 31, 2019 and December 31, 2018, respectfully. The increase in the valuation allowance of $4.8 million during 2019 was primarily due to the increase in net operating loss generated by the Company.

The Company also has federal and state research and development credit carryforwards totaling $0.4 million. The federal research and development credit carryforwards will begin to expire in 2038, unless previously utilized. The Company has generated research credits, but has not conducted a study to document the qualified activity. This study may result in an adjustment to the Company's 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 deferred tax asset established for the research and development credit carryforwards and the valuation allowance.

The Company's ability to use its net operating loss carryforwards ("NOLs") and tax credit carryforwards to offset taxable income is subject to restrictions under Sections 382 and 383 of the United States Internal Revenue Code (the "Internal Revenue Code"). Under the Internal Revenue Code provisions, certain substantial changes in the Company's ownership, including the sale of the Company or significant changes in ownership due to sales of equity, have limited and may limit in the future, the amount of NOLs which could be used annually to offset future taxable income. The Company has not yet completed an analysis of ownership changes. The Company may also experience ownership changes in the future as a result of subsequent shifts in its stock ownership, some of which may be outside the Company's control. As a result, the Company's ability to use its pre-change NOLs to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to the Company. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. Under the TCJA, the use of federal NOLs arising in taxable years beginning after December 31, 2017 is limited to 80% of current year taxable income and NOLs arising in taxable years ending after December 31, 2017 may not be carried back (though any such NOLs may be carried forward indefinitely). The Coronavirus Aid, Relief, and Economic Security (CARES) Act, enacted on March 27, 2020, retroactively and temporarily (for taxable years beginning before January 1, 2021) suspends application of the 80%-of-income limitation on the use of NOLs and provides that NOLs arising in any taxable year beginning after December 31, 2017, and before January 1, 2021 are generally eligible to be carried back up to five years.

The Company establishes reserves for uncertain tax positions based on management's assessment of exposures associated with tax positions taken on tax return filings. The tax reserves are analyzed periodically and adjustments are made as events occur to warrant adjustment to the reserve. The Company does not have any reserves for uncertain tax positions as of December 31, 2019 and any change in position would result in a change in the valuation allowance maintained against its net deferred tax assets.

Interest and penalty charges, if any, related to unrecognized tax benefits would be classified as income tax expense in the accompanying consolidated statements of operations and comprehensive loss. As of December 31, 2019, the Company had no accrued interest related to uncertain tax positions. Since the Company

is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all tax years in which a loss carryforward is available.

10. Net Loss per Share and Unaudited Pro Forma Net Loss per Share

Net Loss per Share Attributable to Common Stockholders

For purposes of the diluted net loss per share calculation, stock options, unvested restricted stock, and convertible preferred stock are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share, as their effect would be anti-dilutive for all periods presented. 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 potential dilutive securities, presented based on amounts outstanding at December 31, 2019 and 2018, 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,	
	2019	2018
Series A Convertible Preferred Stock	48,850,000	48,850,000
Series A-2 Convertible Preferred Stock	23,566,431	7,482,515
Options to purchase common stock	12,221,734	6,147,100

Unaudited Pro Forma Net Loss per Share Attributable to Common Stockholders

The unaudited pro forma basic and diluted net loss per share attributable to common stockholders for the year ended December 31, 2019 has been prepared to give effect to the automatic conversion of all outstanding shares of preferred stock into shares of common stock upon the closing of a qualified IPO.

A reconciliation of pro forma net loss and the pro forma weighted-average number of common shares used in computing pro forma basic and diluted net loss per share applicable to common stockholders is as follows (dollar amounts, except per share amounts, in thousands):

	Year Ended December 31, 2019
Numerator:	
Net loss attributable to common stockholders—basic and diluted	$ (19,724)
Pro forma net loss attributable to common stockholders—basic and diluted	$ (19,724)
Denominator:	
Weighted-average common stock outstanding—basic and diluted	8,841,657
Pro forma adjustment to reflect automatic conversion of convertible preferred stock to common stock upon completion of a qualified IPO	68,891,189
Pro forma weighted-average common stock outstanding—basic and diluted	77,732,846
Pro forma net loss per share attributable to common stockholders—basic and diluted	$ (0.25)

11. Employee Benefit Plans

The Company established a defined contribution savings plan in 2018 for all eligible U.S. employees under Section 401(k) of the Internal Revenue Code. During the years ended December 31, 2019 and 2018, the Company did not make any employer contributions to the plan. Employees can designate the investment of their

401(k) accounts into several mutual funds. Costs of the plan for each of the years ended December 31, 2019 and 2018 were $1 thousand.

12. Related Party Transactions

For each of the years ended December 31, 2019 and 2018, the Company made payments of $0.1 million to one of its directors for scientific consulting and other expenses. In addition, in connection with his service as a consultant, the Company granted this director an option to purchase 75,000 shares at an exercise price per share of $0.13 in 2017 and an option to purchase 500,000 shares at an exercise price per share of $0.27 in 2019. As of December 31, 2019 and 2018, $11 thousand was due to this director, who resigned from the board of directors in May 2020.

See Note 6 for a description of the Company's License and Sponsored Research Agreement with Yale.

13. Subsequent Events

The Company has completed an evaluation of all subsequent events after the audited balance sheet date of December 31, 2019 through the filing date of this Registration Statement on Form S-1 with the SEC, which is May 8, 2020, to ensure that these consolidated financial statements include appropriate disclosure of events both recognized in the consolidated financial statements as of December 31, 2019 and events which occurred subsequently but were not recognized in the consolidated financial statements. No subsequent events have occurred that require disclosure, except as disclosed within these consolidated financial statements.

Through and including , 2020, (the 25th day after the date of this prospectus), all dealers effecting transactions in the Common Stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Shares

Common Stock

PROSPECTUS

BofA Securities

Cowen

Piper Sandler

Wedbush PacGrow

, 2020

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be incurred in connection with the offering described in this Registration Statement, other than underwriting discounts and commissions, all of which will be paid by the Registrant. All amounts are estimates except the Securities and Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Authority, Inc. filing fee and the Nasdaq Global Market initial listing fee.

	Amount
SEC registration fee	$ *
Financial Industry Regulatory Authority, Inc. filing fee	*
Nasdaq Global Market initial listing fee	*
Accountants' fees and expenses	*
Legal fees and expenses	*
Transfer agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total expenses	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law, or the DGCL, permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation that will be effective upon the closing of this offering provides that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Our certificate of incorporation that will be effective upon the closing of the offering provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action

by or in the right of us), by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our certificate of incorporation that will be effective upon the closing of the offering also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we do not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

In addition, we intend to enter into indemnification agreements with all of our executive officers and directors prior to the completion of this offering. In general, these agreements provide that we will indemnify the executive officer or director to the fullest extent permitted by law for claims arising in his or her capacity as an executive officer or director of our company or in connection with his or her service at our request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that an executive officer or director makes a claim for indemnification and establish certain presumptions that are favorable to the executive officer or director.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

The underwriting agreement we will enter into in connection with the offering of common stock being registered hereby provides that the underwriters will indemnify, under certain conditions, our directors and officers (as well as certain other persons) against certain liabilities arising in connection with such offering.

Insofar as the foregoing provisions permit indemnification of directors, executive officers or persons controlling us for liability arising under the Securities Act of 1933, as amended, or the Securities Act, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding shares of our common stock, shares of our convertible preferred stock and stock options granted by us within the past three years that were not registered under the Securities Act. Also included is the consideration, if any, received by us for such shares and options and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

(a) Issuances of Preferred Stock

On May 26, 2017, we issued and sold 5,556 shares of our Series A convertible preferred stock to one investor at a price per share of $1.00 in cash, for an aggregate purchase price of $5,556.

On November 8, 2018, we issued and sold 21,666,667 shares of our Series A convertible preferred stock to 13 investors at a price per share of $1.00 in cash, for an aggregate purchase price of $21,666,667.

On November 9, 2018, we issued and sold 7,482,515 shares of our Series A-2 convertible preferred stock to five investors at a price per share of $1.43 in cash, for an aggregate purchase price of $10,699,996.45.

On March 22, 2019, we issued and sold 16,083,916 shares of our Series A-2 convertible preferred stock to six investors at a price per share of $1.43 in cash, for an aggregate purchase price of $22,999,999.88.

No underwriters were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act and, in certain cases, Regulation D thereunder, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All 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 statement or an available exemption from such registration.

(b) Stock Option Grants and Exercises

Between January 1, 2017 and May 8, 2020, we granted options to purchase an aggregate of 17,371,461 shares of our common stock, with exercise prices ranging from $0.13 to $0.37 per share, to our employees, directors, advisors and consultants pursuant to our Amended and Restated 2017 Equity Incentive Plan. Between January 1, 2017 and May 8, 2020, we issued 540,258 shares of our common stock upon the exercise of stock options outstanding under our Amended and Restated 2017 Equity Incentive Plan for aggregate consideration of $77,366.52.

The stock options and the shares of our common stock issued upon the exercise of stock options described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees, directors, advisors and consultants, in reliance on the exemption provided by Rule 701 promulgated under the Securities Act, or pursuant to Section 4(a)(2) under the Securities Act, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All recipients either received adequate information about our company or had access, through employment or other relationships, to such information.

Item 16. Exhibits and Financial Statement Schedules.

(a) ***Exhibits***

Exhibit Number	Description of Exhibit
1.1*	Form of Underwriting Agreement
3.1	Second Amended and Restated Certificate of Incorporation, as amended, of the Registrant
3.2	By-laws of the Registrant
3.3*	Form of Restated Certificate of Incorporation of the Registrant (to be effective upon the closing of this offering)

Exhibit Number	Description of Exhibit
3.4*	Form of Amended and Restated Bylaws of the Registrant (to be effective upon the closing of this offering)
4.1*	Specimen Stock Certificate evidencing the shares of common stock
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1	Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Registrant and the other parties thereto, as amended
10.2	Registration Rights Agreement, dated as of June 1, 2016, by and among the Registrant and the other parties thereto
10.3	Amended and Restated 2017 Equity Incentive Plan, as amended
10.4	Form of Stock Option Agreement Granted under Amended and Restated 2017 Equity Incentive Plan
10.5*	2020 Stock Incentive Plan
10.6*	Form of Stock Option Agreement under the 2020 Stock Incentive Plan
10.7*	Form of Restricted Stock Unit Agreement under the 2020 Stock Incentive Plan
10.8*	2020 Employee Stock Purchase Plan
10.9*	Summary of Non-Employee Director Compensation Program
10.10†	License Agreement, dated January 6, 2017, by and between Yale University and the Registrant, as amended by Amendment No. 1 to License Agreement, dated May 2, 2020, by and between Yale University and the Registrant
10.11†	Corporate Sponsored Research Agreement, dated January 6, 2017, by and between Yale University and the Registrant, as amended by Amendment No. 1 to Corporate Sponsored Research Agreement, dated February 19, 2019, by and between Yale University and the Registrant
10.12	Form of Restricted Stock Agreement between the Registrant and Axel Bolte
10.13	Lease, dated December 13, 2019, by and between 321 Summer Street LLC and the Registrant
10.14*	Form of Indemnification Agreement between the Registrant and each of its Executive Officers and Directors
21.1	Subsidiaries of the Registrant
23.1*	Consent of Ernst & Young LLP, independent registered public accounting firm
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page)

* To be filed by amendment.

† Certain portions of this exhibit have been omitted because they are not material and would likely cause competitive harm to the Registrant if disclosed.

(b) ***Financial Statement Schedules***

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the related notes.

Item 17. Undertakings.

(a) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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.

(b) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, 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, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts, on this day of , 2020.

INOZYME PHARMA, INC.

By: _____
Axel Bolte
President and Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Inozyme Pharma, Inc., hereby severally constitute and appoint Axel Bolte and Stephen Basso, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him or her and in his or her name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and any other registration statement for the same offering pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their, his or her substitute or substitutes, 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 has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
_____ Axel Bolte	President and Chief Executive Officer, Director (Principal Executive Officer)	, 2020
_____ Stephen Basso	Senior Vice President, Finance (Principal Financial Officer and Principal Accounting Officer)	, 2020
_____ Sarah Bhagat	Director	, 2020
_____ Reinaldo Diaz	Director	, 2020
_____ Martin Edwards	Director	, 2020
_____ Robert Hopfner	Director	, 2020
_____ Edward Mathers	Director	, 2020

SECOND AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION

OF

INOZYME PHARMA, INC.

Pursuant to Sections 242 and 245 of
the General Corporation Law of the State of Delaware

Inozyme Pharma, Inc, (the "***Corporation***"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "***DGCL***"), does hereby certify as follows:

FIRST: The name of the Corporation is Inozyme Pharma, Inc.

SECOND: The Certificate of Incorporation of the Corporation initially was originally filed with the Secretary of State of the State of Delaware on January 12, 2017. The original Certificate of Incorporation was amended and restated on April 13, 2017, as amended January 19, 2017.

THIRD: The Certificate of Incorporation of the Corporation is hereby amended and restated in its entirety as follows:

CERTIFICATE OF INCORPORATION

OF

INOZYME PHARMA, INC.

ARTICLE I.

The name of this corporation is Inozyme Pharma, Inc. (the "***Company***").

ARTICLE II.

The address of the registered office of this Company in the State of Delaware is The Corporation Trust Center, 1209 Orange Street, in the city of Wilmington, county of New Castle, Zip Code 19801, and the name of the registered agent of this Company in the State of Delaware at such address is The Corporation Trust Company.

ARTICLE III.

The purpose of the Company is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware, as the same exists or as may hereafter be amended from time to time ("***DGCL***"),

ARTICLE IV.

A. The Company is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that the Company is authorized to issue is One Hundred Eighty One Million Eight Hundred One Thousand Forty Four (181,801,044) shares, One Hundred Four Million (104,000,000) shares of which shall be Common Stock (the "***Common Stock***") and Seventy Seven Million Eight Hundred One Thousand Forty Four (77,801,044) shares of which shall be Preferred Stock (the "***Preferred Stock***"). The Common Stock shall have a par value of $0.0001 per share and the Preferred Stock shall have a par value of $0.0001 per share.

B. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by the affirmative vote of the holders of a majority of the stock of the Company entitled to vote, voting together as a single class, with holders of shares of Series A Convertible Preferred Stock entitled to the number of votes per share provided in Section 2(a) of Article IV.D., and without a separate class vote by the holders of Common Stock, irrespective of the provisions of Section 242(b)(2) of the DGCL.

C. Forty Eight Million Eight Hundred Fifty Thousand (48,850,000) of the authorized shares of Preferred Stock are hereby designated "***Series A Convertible Preferred Stock***" and Twenty Eight Million Nine Hundred Fifty One Thousand Forty Four (28,951,044) of the authorized shares of Preferred Stock are hereby designated "***Series A-2 Convertible Preferred Stock***". The Series A Convertible Preferred Stock and the Series A-2 Convertible Preferred Stock are collectively referred to herein as the "***Series A Preferred***."

D. The rights, preferences, privileges, restrictions and other matters relating to the Series A Preferred are as follows:

SERIES A PREFERRED

1. DIVIDEND RIGHTS.

(a) The Company shall not declare, pay or set aside for payment any dividends on shares of any other class or series of capital stock of the Company (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any vote or approval required by Section 2(b)(viii) of Article IV.D.) prior to or simultaneous with such declaration, payment or setting aside the Company shall pay, or declare and set aside for payment to holders of the outstanding Series A Preferred, a dividend on each outstanding share of the applicable series of Series A Preferred in an amount equal to (i) in the case of a dividend on Common Stock, the product of the amount of such dividend per share of Common Stock times the number of shares of Common Stock into which one share of such series of Series A Preferred is convertible at the close of business on the record date for such dividend,

(ii) in the case of a dividend on any class or series of the Company's stock that is convertible into Common Stock, that dividend per share of the applicable series of Series A Preferred as would equal the product of (A) the quotient obtained by dividing the amount of the dividend payable on each share of such class or series on which a dividend is being declared, paid or set aside by the number of shares of Common Stock into which each share of such class or series is convertible at the close of business on the record date for such dividend, and (B) the number of shares of Common Stock issuable upon conversion of a share of such series of Series A Preferred, calculated at the close of business on the record date for determination of holders entitled to receive such dividend or (iii) in the case of a dividend on any class or series of stock of the Company that is not convertible into Common Stock, at a rate per share of the applicable series of Series A Preferred determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to proportionate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to shares of such class or series) and (B) multiplying such rate by an amount equal to the applicable Original Issue Price (as defined below),

(b) The "***Original Issue Price***" of (i) the Series A Convertible Preferred Stock shall be $1.00 (as proportionately adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) and (ii) the Series A-2 Convertible Preferred Stock shall be $1.43 (as proportionately adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares).

(c) So long as any shares of Series A Preferred are outstanding, the Company shall not declare, pay, or set aside for payment, any dividends (whether in cash or property), or make any other distribution, on the Common Stock, or purchase, redeem or otherwise acquire for value any shares of any other class or series of capital stock of the Company, until all dividends as set forth in Section 1(a) above on each applicable series of Series A Preferred shall have been paid or declared and set aside for payment, except for:

(i) acquisitions of Common Stock by the Company from employees or consultants pursuant to agreements that permit the Company to repurchase such shares at no more than cost upon termination of services to the Company or the occurrence of other events as may be specified in such agreements;

(ii) acquisitions of Common Stock or Series A Preferred in exercise of the Company's right of first refusal to repurchase such shares; or

(iii) distributions to holders of Common Stock in accordance with Section 3.

(d) The provisions of Sections 1(c) shall not apply to a dividend payable solely in Common Stock to which the provisions of Section 4(f) hereof are applicable, or any repurchase of any outstanding securities of the Company that is approved by (i) the Board of Directors of the Company (the "***Board***") and (ii) holders of the Series A Preferred as may be required by Section 2(b)(viii) of this Article IV.D.

2. VOTING RIGHTS.

(a) General Rights. 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) other than the election of directors pursuant to Section 2(d)(ii) of this Article IV.D., each holder of shares of Series A Preferred shall be entitled to cast the number of votes equal to the number of shares of Common Stock into which such holder's shares of Series A Preferred could be converted (pursuant to Section 4 hereof) (x) at the close of business on the record date fixed for such meeting or (y) on the effective date of such written consent and shall be entitled to notice of any stockholders' meeting in accordance with the By-laws of the Company. Except as otherwise provided herein or as required by law, the Series A Preferred shall vote together with the Common Stock at any annual or special meeting of the stockholders and not as a separate class, and on any matter to be acted upon by written consent in lieu of a meeting shall act together with the Common Stock and not as a separate class.

(b) Separate Vote of Series A Preferred. For so long as at least 9,572,255 shares of Series A Preferred remain outstanding (as proportionately adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares), in addition to any other vote or consent of the stockholders or the Board required herein or by law or the By-laws of the Company, the Company shall not, either directly or indirectly by amendment, merger, recapitalization, consolidation or otherwise, do any of the following without the prior affirmative vote of, or written consent in lieu of a meeting by, the holders of at least 56% of the then outstanding shares of Series A Preferred (the "***Required Majority***"), voting or consenting (as the case may be) as a single class on an as-converted basis, and any such act or transaction entered into without such consent or vote, shall be null and void *ab initio*, and of no force or effect:

(i) Amend, alter, or repeal any provision of the Certificate of Incorporation or the Bylaws of the Company (including any filing with the Secretary of State of a certificate designating the rights and preferences of any class or series of capital stock of the Company pursuant to Section 151(g) of the DGCL) that alters or changes the voting or other powers, preferences, or other special rights, privileges or restrictions of the Series A Preferred;

(ii) Increase the authorized number of shares of Common Stock or Preferred Stock;

(iii) Amend, alter, or repeal any provision of an employee stock or option plan;

(iv) Approve, authorize, or undertake any new financing or other transaction in which the Company raises capital (inclusive of equity, bridge notes, warrants, or other financing vehicles or structures, including corporate partnerships for the purpose of researching, developing or commercializing any of the Company's products);

(v) Approve, authorize, make, or issue any borrowings, loans or guarantees, if the aggregate amount of such borrowing, loan and/or guarantee outstanding at any one time would exceed $500,000;

(vi) Authorize, designate or issue, whether by reclassification or otherwise, any new class or series of stock or any other equity or debt securities convertible into

capital stock of the Company that would have rights to vote as a separate class or that would rank on parity with or senior to the Series A Preferred in right of redemption, liquidation preference, or dividend rights or increase the authorized number of shares of any such class or series;

(vii) Terminate the employment of any officer of the Company, hire any new officer of the Company, make any change in the officer position held by any existing employee or appoint or elect any employee to an officer position with the Company;

(viii) Make any redemption, repurchase, payment or declaration of cash dividends or other distributions with respect to Common Stock or Preferred Stock (except for acquisitions of Common Stock by the Company permitted by Section 1(c)(i), (ii) and (iii) of this Article IV.D.);

(ix) Enter into any agreement by the Company regarding a Liquidation Event, an Asset Transfer or Acquisition (each as defined in Section 3 hereof) or a license of material intellectual property out of the ordinary course of business;

(x) Dissolve, liquidate or wind-up the business and affairs of the Company or undertake any reclassification or recapitalization of the outstanding capital stock of the Company, or consent to any of the foregoing;

(xi) Increase or decrease the authorized number of, or method of selecting, members of the Board.

(xii) Enter into any interested party transaction (which shall mean a transaction between the Company and any director, officer, consultant, employee or stockholder of the Company or any affiliate or "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such persons), unless approved by the Board (including a majority of disinterested Directors);

(xiii) Make any loan or advance, or enter into any agreement in contemplation of making any loan or advance, to any person or entity, including but not limited to employees, consultants or directors, except advances (a) in the ordinary course of business, (b) under the terms of an employee stock or option plan duly authorized and administered by the Board or (c) as approved by the affirmative vote of a majority of the directors elected by the holders of shares of Series A Preferred pursuant to Section 2(d)(i) of this Article IV.D. (the "***Preferred Directors***") and the affirmative vote of a majority of the Board; or

(xiv) Make any change to the type of legal entity of the Company, unless approved by the affirmative vote of a majority of the Preferred Directors and the affirmative vote of a majority of the Board.

(c) Separate Vote of Series A-2 Convertible Preferred Stock. For so long as at least 2,244,755 shares of Series A-2 Convertible Preferred Stock remain outstanding (as proportionately adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares), in addition to any other vote or consent of the stockholders or the Board required herein or by law or the By-laws of the Company, the Company shall not, either directly or indirectly by amendment, merger, recapitalization, consolidation or otherwise, do any

of the following without the prior affirmative vote of, or written consent in lieu of a meeting by, the holders of a majority of the then outstanding shares of Series A-2 Convertible Preferred Stock, voting or consenting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote, shall be null and void *ab initio*, and of no force or effect:

(i) Amend, alter, or repeal any provision of the Certificate of Incorporation or the By-laws of the Company (including any filing with the Secretary of State of a certificate designating the rights and preferences of any class or series of capital stock of the Company pursuant to Section 151(g) of the DGCL) that materially and adversely affects the powers, preferences or rights of the Series A-2 Convertible Preferred Stock (it being understood that the creation or authorization of a class or series of stock that is senior to, pari passu with or junior to any other class or series of stock shall not be deemed to materially and adversely affect the powers, preferences or rights of the Series A-2 Convertible Preferred Stock), except to the extent that such alteration or change is simultaneously made to all series of Preferred Stock then outstanding so as to affect all such series adversely; or

(ii) Increase the authorized number of shares of Series A-2 Convertible Preferred Stock.

(d) Election of Board of Directors.

(i) The holders of Series A Preferred, voting as a separate class, shall be entitled to elect four (4) members of the Board at each meeting of the Company's stockholders for the election of directors or action to elect directors by written consent in lieu of a meeting, and shall have the exclusive power to remove such directors from office in accordance with applicable law and to fill any vacancy caused by the resignation, death or removal of such directors; provided, however, the right of the holders of Series A Preferred to elect four (4) members of the Board pursuant to this subsection (i) shall be correspondingly reduced in the event one or more of the holders of shares of Series A Preferred entitled to designate a Preferred Director pursuant to Section 1.2(a) of that certain Voting Agreement, dated as of a date on or about the Original Issue Date (defined below), by and among the Company, holders of the Series A Preferred and certain holders of Common Stock, as such agreement may be amended from time to time (the "***Voting Agreement***"), is no longer entitled to designate a Preferred Director in accordance with the provisions set forth in Section 1.2(a) of the Voting Agreement.

(ii) The holders of Common Stock, voting as a separate class, shall be entitled to elect two (2) members of the Board at each meeting of the Company's stockholders for the election of directors or action to elect directors by written consent in lieu of a meeting, and shall have the exclusive power to remove such directors from office in accordance with applicable law and to fill any vacancy caused by the resignation, death or removal of such directors.

(iii) The holders of Common Stock and Series A Preferred, voting together as a single class, with holders of shares of Series A Preferred entitled to the number of votes per share provided in Section 2(a) of this Article IV.D., shall be entitled to elect the balance of the members of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such director in accordance

with applicable law and to fill any vacancy caused by the resignation, death or removal of such director; the director nominated for a vote of stockholders under this Section 2(d)(iii) shall be nominated as provided in the Voting Agreement.

(iv) At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director.

3. LIQUIDATION RIGHTS.

(a) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary (a "***Liquidation Event***"), before any distribution or payment shall be made to the holders of any Common Stock, the holders of Series A Preferred shall be entitled to be paid, on a pari passu basis, out of the assets of the Company legally available for distribution (or the consideration received by the Company or its stockholders in an Acquisition) for each share of Series A Preferred held by them, an amount per share of the applicable series of Series A Preferred equal to the applicable Original Issue Price plus all declared and unpaid dividends on each such series of Series A Preferred. If, upon any such Liquidation Event, the assets of the Company shall be insufficient to make payment in full to all holders of Series A Preferred of the liquidation preference set forth in this Section 3(a), then such assets (or consideration) shall be distributed among the holders of Series A Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

(b) After the payment of the full liquidation preference of the Series A Preferred as set forth in Section 3(a) above, the remaining assets of the Company legally available for distribution in such Liquidation Event (or the consideration received by the Company or its stockholders in an Acquisition), if any, shall be distributed ratably to the holders of the Common Stock and Series A Preferred, with each share of Series A Preferred being treated as if converted into the number of shares of Common Stock into which such share was convertible under Section 4(a) of this Article IV.D. on the date of the Liquidation Event.

(c) An Asset Transfer or Acquisition (each as defined below) shall be deemed a Liquidation Event for purposes of this Section 3.

(i) For the purposes of this Section 3: (i) "***Acquisition***" shall mean (A) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, other than any such consolidation, merger or reorganization in which the shares of capital stock of the Company outstanding immediately prior to such consolidation, merger or reorganization, continue to represent a majority of the voting power of the surviving or resulting entity (or, if the surviving or resulting entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization (provided that, for the purpose of this Section 3(c), all shares of Common Stock issuable upon exercise of options outstanding immediately prior to such consolidation or merger or upon conversion of Convertible Securities (as defined below) outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as

the actual outstanding shares of capital stock are converted or exchanged); or (B) any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the voting power of the outstanding capital stock of the Company's is transferred by a transfer of outstanding shares of capital stock of the Company (but excluding the issuance of stock pursuant to bona fide financings by the Company); and (ii) "***Asset Transfer***" shall mean a sale, lease, exclusive license or other disposition of all or substantially all of the assets of the Company.

(ii) In any Acquisition or Asset Transfer, if the consideration to be received is securities of a corporation or other property other than cash, its value will be deemed its fair market value as determined in good faith by the Board (including at least three of the Preferred Directors) on the date such determination is made.

(iii) The Company shall not have the power to effect an Acquisition or Asset Transfer unless the definitive agreement for such transaction (the "Agreement") provides that the consideration payable to the stockholders of the Company in connection therewith shall be allocated among the holders of capital stock of the Company in accordance with this Section 3.

(d) In the event of a Liquidation Event, if any portion of the consideration payable to the Company or the stockholders of the Company is placed into escrow and/or is payable to the Company or the stockholders of the Company subject to contingencies, the definitive agreement for such transaction shall provide that (x) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "***Initial Consideration***") shall be allocated among the holders of capital stock of the Company in accordance with Section(s) 3(a) and 3(b) as if the Initial Consideration were the only consideration payable in connection with such Acquisition or Asset Transfer and (y) any additional consideration that becomes payable to the stockholders of the Company upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of the Company in accordance with Section(s) 3(a) and 3(b) after taking into account the previous payment of the Initial Consideration as part of the same transaction and, if applicable, any earlier release of consideration from escrow.

4. CONVERSION RIGHTS.

The holders of the Series A Preferred shall have the following rights with respect to the conversion of the Series A Preferred into shares of Common Stock (the "***Conversion Rights***"):

(a) Optional Conversion. Subject to and in compliance with the provisions of this Section 4, any shares of Series A Preferred may, at the option of the holder, be converted at any time after the Conversion Trigger Date, into fully-paid and nonassessable shares of Common Stock. The "***Conversion Trigger Date***" means the earliest to occur of: (i) the business day immediately following the date of the Milestone Closing (as defined in the Series A-2 Convertible Preferred Stock Purchase Agreement, dated on or about the Original Issue Date, by and between the Company and the purchasers of the Series A-2 Convertible Preferred Stock (the "***Stock Purchase Agreement***")), (ii) the business day immediately following the date of the Qualified Closing (as defined in the Stock Purchase Agreement) with respect to the Series A

Preferred held by purchasers who participate in such Qualified Closing, (iii) September 30, 2021, (iv) the date upon which the Company and the Required Majority determine that the Milestone (as defined in the Stock Purchase Agreement) will not occur, (v) the day immediately following the date on which the Board or the Company's stockholders adopt a resolution to effect a Liquidation Event, Acquisition or Asset Transfer. The number of shares of Common Stock to which a holder of Series A Preferred shall be entitled upon conversion shall be the product obtained by multiplying the "Series A Preferred Conversion Rate" then in effect (determined as provided in Section 4(b)) by the number of shares of Series A Preferred being converted.

(b) Series A Preferred Conversion Rate. The conversion rate in effect at any time for conversion of a series of Series A Preferred (the "***Series A Preferred Conversion Rate***") shall be the quotient obtained by dividing the applicable Original Issue Price of such series of Series A Preferred by the applicable "Series A Preferred Conversion Price," calculated as provided in Section 4(c).

(c) Series A Preferred Conversion Price. The conversion price for a series of Series A Preferred shall initially be the applicable Original Issue Price of such series of Series A Preferred (as applicable, the "***Series A Preferred Conversion Price***). Such initial Series A Preferred Conversion Price shall be adjusted from time to time in accordance with this Section 4. All references to the Series A Preferred Conversion Price herein at any particular date shall mean the Series A Preferred Conversion Price as so adjusted at such date.

(d) Mechanics of Optional Conversion. Each holder of Series A Preferred who desires to convert the same into shares of Common Stock pursuant to Section 4(a) shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Company or any transfer agent for the Series A Preferred, and shall give written notice to the Company at such office that such holder elects to convert the same. Such notice shall state the number of shares of Series A Preferred being converted. Thereupon, the Company shall promptly issue and deliver at such office to such holder a certificate or certificates for the number of shares of Common Stock to which such holder is entitled and shall promptly pay (i) in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock (at the Common Stock's fair market value determined by the Board as of the date of such conversion), any declared and unpaid dividends on the shares of Series A Preferred being converted and (ii) in cash (at the Common Stock's fair market value as of the date of conversion, as determined by the Board and set forth in a duly adopted resolution) the value of any fractional share of Common Stock otherwise issuable to any holder of Series A Preferred. Such conversion shall be deemed to have been made at the close of business on the date of such surrender of the certificates representing the shares of Series A Preferred to be converted, and the person entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock at the close of business on such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, as amended (the "***Securities Act***"), the conversion may, at the option of any holder tendering shares of Series A Preferred for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the persons entitled to receive the Common Stock upon conversion of the Series A Preferred shall not be deemed to have converted such Series A Preferred until immediately prior to the closing of such sale of securities.

(e) Adjustment for Stock Splits and Combinations. If at any time or from time to time on or after the date that the first share of Series A-2 Convertible Preferred Stock is issued (the "***Original Issue Date***") the Company effects a subdivision of the outstanding Common Stock, each Series A Preferred Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if at any time or from time to time after the Original Issue Date the Company combines the outstanding shares of Common Stock into a smaller number of shares, each Series A Preferred Conversion Price in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 4(e) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Common Stock Dividends and Distributions. If at any time or from time to time on or after the Original Issue Date the Company pays to holders of Common Stock a dividend or other distribution in additional shares of Common Stock, each Series A Preferred Conversion Price then in effect shall be decreased as of the time of such payment, as provided below:

(i) The Series A Preferred Conversion Price shall be adjusted by multiplying the applicable Series A Preferred Conversion Price in effect immediately prior to such payment by a fraction:

(A) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such payment, and

(B) the denominator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such payment plus the number of shares of Common Stock issued in payment of such dividend or distribution;

(ii) If the Company fixes a record date to determine which holders of Common Stock are entitled to receive such dividend or other distribution, each Series A Preferred Conversion Price shall be adjusted as of the close of business on such record date and the number of shares of Common Stock shall be calculated immediately prior to the close of business on such record date; and

(iii) If such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the payment date fixed therefor, each Series A Preferred Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter each Series A Preferred Conversion Price shall be adjusted pursuant to this Section 4(f) to reflect the actual payment of such dividend or distribution.

(g) Adjustment for Reclassification, Exchange, Substitution, Reorganization, Merger or Consolidation. If at any time or from time to time on or after the Original Issue Date the Common Stock issuable upon the conversion of the Series A Preferred is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification, merger, consolidation or otherwise (other than an Acquisition as defined in Section 3 or a subdivision or combination of shares or stock dividend provided for elsewhere in this Section 4), in any such event each outstanding share of Series A Preferred shall

thereafter be convertible, in lieu of the Common Stock into which it was convertible prior to such event, into the kind and amount of securities, cash or other property that a holder of the number of shares of Common Stock of the Company issuable upon conversion of one share of the applicable series of Series A Preferred immediately prior to such recapitalization, reclassification, merger, consolidation or other transaction would have been entitled to receive pursuant to such transaction, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of Series A Preferred after the capital reorganization to the end that the provisions of this Section 4 (including adjustment of the Series A Preferred Conversion Price then in effect and the number of shares issuable upon conversion of the Series A Preferred) shall be applicable after that event and be as nearly equivalent as practicable.

(h) Sale of Shares Below Series A Preferred Conversion Price.

(i) If at any time or from time to time on or after the Original Issue Date the Company issues or sells, or is deemed by the express provisions of this Section 4(h) to have issued or sold, Additional Shares of Common Stock (as defined below), other than as provided in Section 4(e), 4(f) or 4(g) above, for an Effective Price (as defined below) less than the Series A Preferred Conversion Price in effect for such series immediately prior to such issuance, sale or deemed issuance or sale (a "***Qualifying Dilutive Issuance***"), then and in each such case, the applicable Series A Preferred Conversion Price in effect immediately prior to such issuance, sale or deemed issuance or sale shall be reduced, as of the time of such issuance, sale or deemed issuance or sale, to a price determined by multiplying the Series A Preferred Conversion Price in effect immediately prior to such issuance, sale or deemed issuance or sale by a fraction:

(A) the numerator of which shall be (A) the number of shares of Common Stock deemed outstanding (as determined below) immediately prior to such issue or sale, plus (B) the number of shares of Common Stock that the Aggregate Consideration (as defined below) received or deemed received by the Company for the total number of Additional Shares of Common Stock so issued would purchase at such then-effective Series A Preferred Conversion Price for such series, and

(B) the denominator of which shall be the number of shares of Common Stock deemed outstanding (as determined below) immediately prior to such issue or sale plus the total number of Additional Shares of Common Stock so issued.

For the purposes of the immediately preceding sentence, the number of shares of Common Stock deemed to be outstanding as of any date of determination shall be the sum of (A) the number of shares of Common Stock outstanding on such date, (B) the number of shares of Common Stock into which the shares of Series A Preferred outstanding on such date could be converted if fully converted at the close of business on the day immediately preceding such date, and (C) the number of shares of Common Stock that are issuable upon the exercise, conversion or exchange of all other rights, options and convertible securities outstanding at the close of business on the day immediately preceding such date. Shares described in (A) through (C) immediately above shall be included whether vested or unvested, whether exercisable, convertible or exchangeable contingently or non-contingently and whether convertible, exercisable, or exchangeable at the close of business on such date or not yet convertible, exercisable or exchangeable.

(ii) Except as provided in the second sentence of this subsection (ii), no adjustment shall be made to the Series A Preferred Conversion Price in an amount less than one percent (1%) of the Series A Preferred Conversion Price then in effect. Any adjustment otherwise required by this Section 4(h) that is not required to be made due to the first sentence of this subsection (ii) shall be included in any subsequent adjustment to the Series A Preferred Conversion Price and in any event upon actual conversion of the Series A Preferred into shares of Common Stock at the time of conversion. Any adjustment required by this Section 4(h) shall be calculated to the nearest one-hundredth of a cent.

(iii) For the purpose of making any adjustment required under this Section 4(h), the aggregate consideration received by the Company for any issue or sale of securities (the "***Aggregate Consideration***") shall be defined as: (A) to the extent it consists of cash, the gross amount of cash received by the Company before deduction of any underwriting, placement, finder's adviser's or similar commissions, compensation or concessions paid or allowed by the Company in connection with such issue or sale and without deduction of any expenses payable by the Company, (B) to the extent it consists of property other than cash, the fair market value of that property as determined in good faith by the Board, and (C) if Additional Shares of Common Stock, Convertible Securities (as defined below) or Options (as defined below) are issued or sold together with other stock or securities or other assets of the Company for a consideration that the Company receives for both, the portion of the consideration so received that may be reasonably determined in good faith by the Board to be allocable to such Additional Shares of Common Stock, Convertible Securities or Options.

(iv) For the purpose of the adjustment required under this Section 4(h), if the Company issues or sells (x) any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Additional Shares of Common Stock, but excluding Options ("***Convertible Securities***") or (y) rights, options or warrants to subscribe for, purchase or otherwise acquire Additional Shares of Common Stock or Convertible Securities ("***Options***") and if the Effective Price of such Additional Shares of Common Stock is less than the Series A Preferred Conversion Price, in each case the Company shall be deemed to have issued at the time of the issuance of such Convertible Securities or Options the maximum number of Additional Shares of Common Stock issuable upon exercise or conversion thereof and to have received as consideration for the issuance of such shares an amount equal to the total amount of the consideration, if any, received by the Company for the issuance of such Convertible Securities or Options plus:

(A) in the case of Options, the minimum amounts of consideration, if any, payable to the Company upon the exercise of such Options; and

(B) in the case of Convertible Securities, the minimum amounts of consideration, if any, payable to the Company upon the exercise or conversion thereof (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities to the extent amounts the Company received in exchange for creating such liabilities and obligations were included in the Aggregate Consideration the Company is deemed to have received for

issuance of such Additional Shares of Common Stock); *provided* that if the minimum amounts of such consideration cannot be ascertained, but are a function of antidilution or similar protective clauses, the Company shall be deemed to have received the minimum amounts of consideration without reference to such clauses.

(C) If the minimum amount of consideration payable to the Company upon the exercise or conversion of Options or Convertible Securities is reduced over time or on the occurrence or non-occurrence of specified events other than by reason of antidilution adjustments, the Effective Price shall be recalculated using the figure to which such minimum amount of consideration is reduced; *provided further,* that if the minimum amount of consideration payable to the Company upon the exercise or conversion of such Options or Convertible Securities is subsequently increased, the Effective Price shall be again recalculated, effective on the date of each increase, using the increased minimum amount of consideration payable to the Company upon the exercise or conversion of such Options or Convertible Securities.

(D) No further adjustment of the Series A Preferred Conversion Price, as adjusted upon the issuance of such Options or Convertible Securities, shall be made as a result of the actual issuance of Additional Shares of Common Stock or the exercise of any such Options or the conversion or exchange of any such Convertible Securities. If any such Options or the exercise, conversion or exchange rights represented by any such Convertible Securities shall expire without having been exercised, converted or exchanged, as applicable, the Series A Preferred Conversion Price as adjusted upon the issuance of such Options or Convertible Securities shall be readjusted to the Series A Preferred Conversion Price that would have been in effect had an adjustment been made on the basis that the only Additional Shares of Common Stock so issued were the Additional Shares of Common Stock, if any, actually issued or sold on the exercise of such Options or rights of conversion or exchange of such Convertible Securities, and such Additional Shares of Common Stock, if any, were issued or sold for the consideration actually received by the Company upon such exercise, conversion or exchange, as applicable, plus the consideration, if any, actually received by the Company for the granting of all such Options, whether or not exercised, plus the consideration received for issuing or selling the Convertible Securities actually converted, plus the consideration, if any, actually received by the Company (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities to the extent amounts the Company received in exchange for creating such liabilities and obligations were included in the Aggregate Consideration the Company is deemed to have received for issuance of such Additional Shares of Common Stock) on the conversion or exchange of such Convertible Securities, *provided* that such readjustment shall not apply to conversions of Series A Preferred that occurred prior to such readjustment.

(v) For the purpose of making any adjustment to the Conversion Price of the Series A Preferred required under this Section 4(h), "***Additional Shares of Common Stock***" shall mean all shares of Common Stock issued by the Company or, pursuant to this Section 4(h), deemed to be issued by the Company (including shares of Common Stock subsequently reacquired or retired by the Company), other than the following (collectively, the "***Exempted Securities***"):

(A) shares of Common Stock issued or deemed to be issued upon conversion of, or as a dividend on, the Series A Preferred;

(B) shares of Common Stock or Options issued after the Original Issue Date to employees, officers or directors of, or consultants or advisors to, the Company or any subsidiary pursuant to stock purchase or stock option plans or other arrangements, which plans or other arrangements are approved by the Board, including, for plans or arrangements approved after the Original Issue Date, at least three of the Preferred Directors;

(C) shares of Common Stock or Convertible Securities issued pursuant to the exercise of Options or shares of Common Stock issued upon the conversion or exchange of Convertible Securities, in each case outstanding as of the Original Issue Date;

(D) shares of Common Stock, Options or Convertible Securities issued pursuant to any equipment loan or leasing arrangement, real property leasing arrangement or debt financing from a bank or similar financial or lending institution approved by the Board, including at least three of the Preferred Directors;

(E) shares of Common Stock, Options or Convertible Securities issued in connection with any strategic transactions involving the Company and another entity or any acquisition by the Company of another business (whether by merger, consolidation, purchase of stock or assets, lease, license or otherwise) which transaction has been approved by the Board, including at least three of the Preferred Directors, including, without limitation (i) joint ventures, (ii) development, joint development and co-development arrangements, (iii) strategic alliances, (iv) licensing transactions and (v) corporate partnering arrangements;

(F) shares of Common Stock issued in a Qualified Public Offering (as defined below);

(G) shares of Common Stock or Convertible Securities issued on exercise of Options or shares of Common Stock issued upon conversion or exchange of Convertible Securities for which any adjustment to the Conversion Price under this Section 4(h) was made at the time of issuance of such Option or Convertible Security, in each case, provided such issuance is pursuant to the terms of such Option or Convertible Security; and

(H) shares of Common Stock issued in a transaction or circumstance described in Section 4(e), 4(f) or 4(g) and for which adjustment, if any, is provided therein.

The "***Effective Price***" of Additional Shares of Common Stock shall mean the quotient determined by dividing the total number of Additional Shares of Common Stock issued or sold, or deemed to have been issued or sold by the Company under this Section 4(h), into the Aggregate Consideration received, or deemed to have been received by the Company for such issue under this Section 4(h), for such Additional Shares of Common Stock. In the event that the number of Additional Shares of Common Stock or the Effective Price cannot be ascertained at the time of issuance, such Additional Shares of Common Stock shall be deemed issued immediately upon the occurrence of the first event that makes such number of shares or the Effective Price, as applicable, ascertainable.

(vi) In the event that the Company issues or sells, or is deemed to have issued or sold, Additional Shares of Common Stock in a Qualifying Dilutive Issuance (the

"***First Dilutive Issuance***"), then in the event that the Company issues or sells, or is deemed to have issued or sold, Additional Shares of Common Stock in a Qualifying Dilutive Issuance other than the First Dilutive Issuance as a part of the same transaction or series of related transactions as the First Dilutive Issuance (a "***Subsequent Dilutive Issuance***"), then and in each such case upon a Subsequent Dilutive Issuance the Series A Preferred Conversion Price shall be reduced to the Series A Preferred Conversion Price that would have been in effect had the First Dilutive Issuance and each Subsequent Dilutive Issuance all occurred on the closing date of the First Dilutive Issuance.

(vii) No Adjustment of Conversion Price. No adjustment in the Series A Conversion Price of a series of Series A Preferred shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of a majority of the outstanding shares of such series agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

(i) Certificate of Adjustment. In each case of an adjustment or readjustment of the Series A Preferred Conversion Price, the Company, at its expense, shall compute such adjustment or readjustment in accordance with the provisions hereof and shall, upon request, prepare a certificate showing such adjustment or readjustment, and shall mail such certificate, by first class mail, postage prepaid, to each holder of record of each applicable series of Series A Preferred so requesting at the holder's address as shown in the Company's stock ledger. The certificate shall state the adjusted or readjusted Series A Conversion Price and show in reasonable detail the facts upon which such adjustment or readjustment is based, including a statement of (i) the Aggregate Consideration received or deemed to be received by the Company for any Additional Shares of Common Stock issued or sold or deemed to have been issued or sold, (ii) the applicable Series A Preferred Conversion Price in effect immediately prior to such adjustment or readjustment, (iii) the number of Additional Shares of Common Stock issued, deemed issued or no longer issued or deemed issued and in respect of which such adjustment or readjustment has been made and (iv) the type and amount, if any, of other property that at the time would be received upon conversion of the Series A Preferred. Failure to request or provide such notice shall have no effect on any such adjustment or readjustment.

(j) Notices of Record Date. Upon (i) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or (ii) any Acquisition (as defined in Section 3) or other capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company, any merger or consolidation of the Company with or into any other corporation, or any stockholder vote on any Asset Transfer (as defined in Section 3), or any voluntary or involuntary dissolution, liquidation or winding up of the Company, the Company shall mail to each holder of Series A Preferred at least ten days prior to (x) the record date, if any, specified therein; or (y) if no record date is specified, the date upon which such action is to take effect (or, in either case, such shorter period approved by the Required Majority) a notice specifying (A) the date on which any such record is to be taken for the purpose of such dividend or distribution and a description of such dividend or distribution, (B) the date on which any such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up is expected to become effective, and (C) the date, if any,

that is to be fixed as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for securities or other property deliverable upon such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up.

(k) Automatic Conversion.

(i) Each share of Series A Preferred shall automatically be converted into shares of Common Stock, at the Series A Preferred Conversion Price in effect at the time of such conversion, (A) at any time upon the written consent of the Required Majority or (B) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale of Common Stock for the account of the Company in which (i) the per share price is at least $3.00 (as proportionately adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to the Common Stock after the Original Issue Date), and (ii) the gross cash proceeds to the Company (before underwriting discounts, commissions and fees) are at least $50,000,000 (a "***Qualified Public Offering***"). Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 4(d).

(ii) Upon the occurrence of either of the events specified in Section 4(k)(i) above, the outstanding shares of Series A Preferred shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; *provided, however,* that the Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such conversion unless the certificates evidencing such shares of Series A Preferred are either delivered to the Company or its transfer agent as provided below, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates and provides a bond. Upon the occurrence of such automatic conversion of the Series A Preferred, the holders of Series A Preferred shall surrender the certificates representing such shares at the office of the Company or any transfer agent for the Series A Preferred. Thereupon, there shall be issued and delivered to such holder promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Series A Preferred surrendered were converted on the date on which such automatic conversion occurred, and any declared and unpaid dividends shall be paid in accordance with the provisions of Section 4(d).

(l) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Series A Preferred. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series A Preferred by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If after the aforementioned aggregation the conversion would result in the issuance of any fractional share, the Company shall, in lieu of issuing any fractional share, pay cash equal to the product of such fraction multiplied by the fair market value of one share of Common Stock (as determined by the Board) on the date of conversion.

(m) Reservation of Stock Issuable Upon Conversion. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series A Preferred, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series A Preferred. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series A Preferred, the Company will take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(n) Notices. Any notice required by the provisions of this Section 4 shall be in writing and shall be deemed effectively given; (i) upon personal delivery to the party to be notified, (ii) when sent by electronic transmission in compliance with the provisions of the DGCL if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one day after deposit with a nationally recognized overnight courier, specifying next day delivery, with verification of receipt. All notices shall be addressed to each holder of record at the address of such holder appearing on the books of the Company.

(o) Payment of Taxes. The Company will pay all taxes (other than taxes based upon income) and other governmental charges that may be imposed with respect to the issue or delivery of shares of Common Stock upon conversion of shares of Series A Preferred, excluding any tax or other charge imposed in connection with any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which the shares of Series A Preferred so converted were registered.

(p) Special Mandatory Conversion.

(i) Subject to clause (iv) below, if a holder of Series A-2 Convertible Preferred Stock does not either (i) participate in the Milestone Closing (as defined in the Stock Purchase Agreement) by purchasing at least the number of shares of Series A-2 Convertible Preferred Stock set forth opposite such holder's name on Exhibit A-2 to the Stock Purchase Agreement (the "**Milestone Shares**") (provided that, the Company has sent to such holder a Milestone-Based Notice (as defined in the Stock Purchase Agreement) within the time period specified by Section 2.4 of the Stock Purchase Agreement) or (ii) prior to the Milestone Closing, participate in a Qualified Closing (as defined in the Stock Purchase Agreement), then immediately upon completion of the Milestone Closing each share of Series A-2 Convertible Preferred Stock held by such holder or any of its Affiliates shall automatically, and without any further action on the part of such holder or Affiliate, be converted into shares of Common Stock at the conversion ratio determined by dividing (x) the applicable Original Issue Price by (y) the product of five (5) and the applicable Conversion Price in effect immediately prior to the consummation of such Milestone Closing (such conversion, a "***Special Mandatory Conversion***").

(ii) Promptly after a Special Mandatory Conversion, the Company shall give notice of such Special Mandatory Conversion, in accordance with the Stock Purchase Agreement, to each holder of shares of Series A-2 Convertible Preferred Stock converted pursuant to Section 4(p)(i) (a "***Special Mandatory Conversion Notice***"). Upon receipt of a Special

Mandatory Conversion Notice, a holder of such shares of Series A-2 Convertible Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that any such certificate has been lost, stolen or destroyed, a lost certificate affidavit, an agreement, in the form specified by the Company, of such holder to indemnify the Company against any claim that may be made against the Company on account of the alleged loss, theft or destruction of such certificate and a bond if so required by the Company) to the Company at the place designated in the Special Mandatory Conversion Notice. If so required by the Company, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Company, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights as a holder of Series A-2 Convertible Preferred Stock in respect of the shares converted pursuant to Section 4(p)(i), including, without limitation, the rights, if any, to receive notices and vote such shares, will terminate at the time of the Special Mandatory Conversion (notwithstanding any delay or failure of the Company to give the Special Mandatory Conversion Notice or the failure of the holder or holders thereof to surrender any certificates for such shares when required hereby), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders therefor (or lost certificate affidavit, indemnity agreement and bond), to receive the items provided for in Section 4(p)(iii).

(iii) As soon as practicable after the Special Mandatory Conversion and, if applicable, the surrender of any certificate or certificates (or provision by the holder of a lost certificate affidavit, indemnity agreement and bond) for Series A-2 Convertible Preferred Stock so converted, the Company shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, (b) pay cash as provided in Section 4(1) in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion, and (c) pay any declared but unpaid dividends on the shares of Series A-2 Convertible Preferred Stock so converted. Such converted shares of Series A-2 Convertible Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Company may thereafter take such action as may be appropriate to reduce the authorized number of shares of Series A-2 Convertible Preferred Stock accordingly.

(iv) Notwithstanding the above, a Special Mandatory Conversion shall not apply until ten (10) business days after satisfaction of the CFIUS Condition (as defined in the Stock Purchase Agreement) in the event of the CFIUS Exception (as defined in the Stock Purchase Agreement).

(v) As used herein, "***Affiliate***" means, with respect to any holder of Series A-2 Convertible Preferred Stock, any other person who, directly or indirectly, controls, is controlled by, or is under common control with such holder, including, without limitation, any general partner, managing member, officer or director of such holder or any investment fund or other person now or hereafter existing which is controlled by one or more general partners, managing members, or equity holders of, shares the same management company with, or is under common management with, such holder.

5. **REDEMPTION**. The Series A Preferred is not redeemable at the option of the holder thereof, and the Company shall not have any mandatory obligation to redeem the Series A Preferred. Any shares of Series A Preferred redeemed, purchased, converted or exchanged by the Company shall be cancelled and retired and shall not be reissued or transferred.

ARTICLE V.

A. The liability of the directors of the Company for monetary damages shall be eliminated to the fullest extent not prohibited under applicable law.

B. To the fullest extent not prohibited by applicable law, the Company is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Company (and any other persons to which applicable law permits the Company to provide indemnification) through By-law provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise in excess of the indemnification and advancement otherwise permitted by such applicable law. If applicable law is amended after approval by the stockholders of this Article V to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director to the Company shall be eliminated or limited to the fullest extent permitted by applicable law as so amended.

C. Any repeal or modification of this Article V shall be prospective only and shall not affect the rights or protections or increase the liability of any director under this Article V in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

ARTICLE VI.

The Company renounces any interest or expectancy of the Company in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "***Excluded Opportunity***" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Company who is not an employee of the Company or any of its subsidiaries, or (ii) any holder of shares of Series A Preferred or Common Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee or consultant of the Company or any of its subsidiaries (collectively, "***Covered Persons***"), unless in either case such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Company.

ARTICLE VII.

For the management of the business and for the conduct of the affairs of the Company, and in further definition, limitation and regulation of the powers of the Company, of its directors and of its stockholders or any class thereof, as the case may be, it is further *provided* that:

A. The management of the business and the conduct of the affairs of the Company shall be vested in its Board. The number of directors that shall constitute the whole Board shall be fixed by the Board in the manner provided in the By-laws of the Company, subject to any restrictions which may be set forth in this Certificate of Incorporation.

B. The Board of Directors is expressly empowered to adopt, amend or repeal the By-laws of the Company, subject to any restrictions that may be set forth in this Certificate of Incorporation. The stockholders shall also have the power to adopt, amend or repeal the By-laws of the Company, subject to any restrictions that may be set forth in this Certificate of Incorporation.

C. The directors of the Company need not be elected by written ballot unless the By-laws of the Company so provide.

ARTICLE VIII.

Unless the Company consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Company to the Company or the Company's stockholders, (iii) any action asserting a claim against the Company, its directors, officers or employees arising pursuant to any provision of the Delaware General Company Law or the Company's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Company, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article VIII shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article VIII (including, without limitation, each portion of any sentence of this Article VIII containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

ARTICLE IX.

That the foregoing amendment and restatement of the Corporation's Certificate of Incorporation was duly authorized and adopted in accordance with the provisions of Section 242 of the DGCL, by the unanimous written consent of the Board of Directors of the Corporation, in accordance with the provisions of Section 141(f) of the DGCL.

ARTICLE X.

That the foregoing amendment and restatement the Corporation's Certificate of Incorporation has been duly approved, in accordance with the provisions of Section 242 of the DGCL, by the written consent of the holders of a majority of those shares entitled to vote thereon and written notice of such action has been or will be given to the holders of such shares who did not so consent, each in accordance with the provisions of Section 228 of the DGCL.

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IN WITNESS WHEREOF, INOZYME PHARMA, INC. has caused this Amended and Restated Certificate of Incorporation to be signed by its duly authorized officer this 8th day of November, 2018.

INOZYME PHARMA, INC.

By: /s/ Axel Bolte

Axel Bolte
Chief Executive Officer

CERTIFICATE OF AMENDMENT
OF
SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
INOZYME PHARMA, INC.

Pursuant to Section 242 of the
General Corporation Law of the State of Delaware

Inozyme Pharma, Inc. (the "**Corporation**"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**DGCL**"), does hereby certify as follows:

Resolutions were duly adopted by the Board of Directors of the Corporation pursuant to Sections 141(f) and 242 of the DGCL setting forth amendments to the Second Amended and Restated Certificate of Incorporation of the Corporation (the "**Certificate**") and declaring such amendments to be advisable. The stockholders of the Corporation duly approved said proposed amendments by written consent in accordance with Sections 228 and 242 of the DGCL. The resolutions setting forth the amendments are as follows:

RESOLVED: That the second sentence of ARTICLE IV.A. of the Certificate be and hereby is amended by deleting it in its entirety and substituting the following in lieu thereof:

"The total number of shares that the Company is authorized to issue is Two Hundred Twenty Four Million Nine Hundred Eighty Two Thousand Eight Hundred and Sixty Two (224,982,862) shares, One Hundred Twenty Nine Million (129,000,000) shares of which shall be Common Stock (the "***Common Stock***") and Ninety Five Million Nine Hundred Eighty-Two Thousand Eight Hundred and Sixty Two (95,982,862) shares of which shall be Preferred Stock (the "***Preferred Stock***")."

FURTHER RESOLVED: That the first sentence of ARTICLE IV.C. of the Certificate be and hereby is amended by deleting it in its entirety and substituting the following in lieu thereof:

"Forty Eight Million Eight Hundred Fifty Thousand (48,850,000) of the authorized shares of Preferred Stock are hereby designated "***Series A Convertible Preferred Stock***" and Forty Seven Million One Hundred Thirty Two Thousand Eight Hundred and Sixty Two (47,132,862) of the authorized shares of Preferred Stock are hereby designated "***Series A-2 Convertible Preferred Stock***"."

FURTHER RESOLVED: That the reference to "at least 56% of the then outstanding shares of Series A Preferred" in ARTICLE IV.D., Section 2(b) of the Certificate be and hereby is amended by deleting it in its entirety and substituting the following in lieu thereof:

"a majority of the then outstanding shares of Series A Preferred, including the vote or consent (as the case may be) of at least one of the Requisite Holders (as defined in the Stock Purchase Agreement (as defined below)) for so long as at least one of the Requisite Holders holds a majority of the shares of Series A-2 Convertible Preferred Stock purchased by such Requisite Holder from the Company prior to the Milestone Closing (as defined in the Stock Purchase Agreement) (subject to proportionate adjustment in the event of any stock dividend, stock split, combination or similar recapitalization with respect to such shares)".

FURTHER RESOLVED: That the first sentence of ARTICLE IV.D., Section 2(d)(i) of the Certificate be and hereby is amended by deleting it in its entirety and substituting the following in lieu thereof:

"The holders of Series A Preferred, voting as a separate class, shall be entitled to elect five (5) members of the Board at each meeting of the Company's stockholders for the election of directors or action to elect directors by written consent in lieu of a meeting, and shall have the exclusive power to remove such directors from office in accordance with applicable law and to fill any vacancy caused by the resignation, death or removal of such directors; provided, however, the right of the holders of Series A Preferred to elect five (5) members of the Board pursuant to this subsection (i) shall be correspondingly reduced in the event one or more of the holders of shares of Series A Preferred entitled to designate a Preferred Director pursuant to Section 1.2(a) of that certain Voting Agreement, dated November 9, 2018, by and among the Company, holders of the Series A Preferred and certain holders of Common Stock, as such agreement may be amended from time to time (the "***Voting Agreement***"), is no longer entitled to designate a Preferred Director in accordance with the provisions set forth in Section 1.2(a) of the Voting Agreement."

FURTHER RESOLVED: That the parenthetical that reads "(as defined in the Series A-2 Convertible Preferred Stock Purchase Agreement, dated on or about the Original Issue Date, by and between the Company and the purchasers of the Series A-2 Convertible Preferred Stock (the "***Stock Purchase Agreement***"))" in ARTICLE IV.D., Section 4(a) of the Certificate be and hereby is amended by deleting it in its entirety and substituting the following in lieu thereof:

"(as defined in the Series A-2 Convertible Preferred Stock Purchase Agreement, dated on or about the Original Issue Date, by and between the Company and the purchasers of the Series A-2 Convertible Preferred Stock, as such agreement may be amended from time to time (the "***Stock Purchase Agreement***"))".

FURTHER RESOLVED: That ARTICLE IV.D., Section 4(p)(i) of the Certificate be and hereby is amended by deleting it in its entirety and substituting the following in lieu thereof:

"Subject to clause (iv) below, if a holder of Series A-2 Convertible Preferred Stock does not either (i) participate in the Milestone Closing by purchasing at least the number of shares of Series A-2 Convertible Preferred Stock set forth opposite such holder's name on Exhibit A-2 to the Stock Purchase Agreement (the "***Milestone Shares***") (provided that, the Company has sent to such holder a Milestone-Based Notice (as defined in the Stock Purchase Agreement) within the time period specified by Section 2.4 of the Stock Purchase Agreement) or (ii) prior to the Milestone Closing, participate in a Qualified Closing (as defined in the Stock Purchase Agreement), then immediately upon, and conditioned on, completion of the Milestone Closing each share of Series A-2 Convertible Preferred Stock held by such holder or any of its Affiliates shall automatically, and without any further action on the part of such holder or Affiliate, be converted into shares of Common Stock at the conversion ratio determined by dividing (x) the applicable Original Issue Price by (y) the product of five (5) and the applicable Conversion Price in effect immediately prior to the consummation of such Milestone Closing (such conversion, a "***Special Mandatory Conversion***"). For the avoidance of doubt, all shares of Series A-2 Convertible Preferred Stock purchased by a holder at a Qualified Closing prior to a Milestone Closing (as defined in the Stock Purchase Agreement) shall be deemed to be "Milestone Shares" of such holder for the purposes of this Section 4(p)."

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IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed by its Chief Executive Officer this 22nd day of March, 2019

Inozyme Pharma, Inc.

By: /s/ Axel Bolte
Axel Bolte
Chief Executive Officer

Exhibit 3.2

BY-LAWS

INOZYME PHARMA, INC.

(adopted January 9, 2017)

BY-LAWS

INOZYME PHARMA, INC.

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INOZYME PHARMA, INC.

ARTICLE I

OFFICES

Section 1. Delaware Office. The registered office of the Corporation in the State of Delaware shall be in the City of Wilmington and County of New Castle, and the name of the registered agent in charge thereof is The Corporation Trust Company.

Section 2. Other Offices. The Corporation may have an office or offices at such other places in the United States or elsewhere as the Board of Directors may from time to time determine or the business of the Corporation may require.

ARTICLE II

MEETING OF STOCKHOLDERS

Section 1. Annual Meeting. The annual meeting of stockholders of the Corporation for the election of directors and for the transaction of such other business as may properly come before the annual meeting shall be held on such date as shall be fixed by resolution of the Board of Directors with respect to each such meeting and which, together with the time and place, within or without the State of Delaware, shall be stated in the notice of such meeting or waiver of notice thereof.

Section 2. Special Meetings. Special meetings of stockholders for any purpose or purposes may, except as otherwise prescribed by law or in the Certificate of Incorporation, be called at any time by the Chairman of the Board, the Chief Executive Officer, the President or the Secretary or by resolution of the Board of Directors, to be held at such time and place, within or without the State of Delaware, as may be designated in the notice thereof, and the Chairman of the Board, the Chief Executive Officer, the President or the Secretary shall call such a meeting whenever stockholders, holding not less than a majority of all of the outstanding stock of the Corporation entitled to vote at such meeting, shall make written application therefor, stating the purpose or purposes of the meeting applied for, which application shall be filed with the Secretary.

Section 3. Notice of Meetings. Except as otherwise provided or permitted by law or in the Certificate of Incorporation or in these By-laws, written notice of all meetings of stockholders, stating the place, date and hour and the purpose or purposes thereof, shall be given by the Chairman of the Board, the Chief Executive Officer, the President or the Secretary or an Assistant Secretary to each stockholder of record having voting power in respect of the business to be transacted thereat, either by serving such notice upon such stockholder personally or by delivering the same to such stockholder at such stockholder's appropriate address as it appears on the records of the Corporation by courier, telephone line facsimile transmission or e-mail, at least ten days but not more than sixty days prior to the date of the meeting, and the Secretary or an Assistant Secretary or the transfer agent or agents of the Corporation shall make an affidavit as to the giving of such notice. Each notice of such meeting shall contain, inter alia, an agenda specifying, in reasonable detail, the matters to be discussed at the relevant meeting and shall be accompanied by any relevant information for discussion at such meeting.

Section 4. Quorum. The holders of a majority of the shares entitled to vote thereat, present in person or by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business, except as otherwise provided by law, by the Certificate of Incorporation or by these By-laws. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or by proxy at such meeting or any adjournment thereof, shall have power to adjourn the meeting from time to time, by announcement at the meeting of the time and place of the adjourned meeting, until a quorum shall be present or represented. At such adjourned meeting, if a quorum shall be present or represented then any business may be transacted which might have been transacted at the original meeting. If any adjournment, whether a quorum is present or not, is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of law or of the Certificate of Incorporation or of these By-laws a larger or different vote is required, in which case such express provision shall govern and control the decision of such question. The stockholders present or represented at any duly called and held meeting at which a quorum is present or represented may continue to do business until adjournment, notwithstanding the withdrawal of such number as to leave less than a quorum.

Section 5. Organization. Each meeting of stockholders shall be presided over by the Chairman of the Board or, in the absence of the Chairman of the Board or if there shall be no Chairman of the Board, by the Chief Executive Officer, or in the absence of both of said officers, by the President, or in the absence of all of said officers by a Vice President thereunto designated by the Chairman of the Board, the Chief Executive Officer, or the Board of Directors, or in the absence of the Chairman of the Board, the Chief Executive Officer, the President and a Vice President so designated, by any other person selected to preside by vote of the holders of a majority of the issued and outstanding stock present in person or by proxy and entitled to vote at the meeting. The Secretary or, in the absence of the Secretary, an Assistant Secretary or, in the absence of both the Secretary and an Assistant Secretary, any person designated by the person presiding at the meeting, shall act as secretary of the meeting.

Section 6. Proxies and Voting of Shares. At any meeting of stockholders or whenever the stockholders express consent or dissent to corporate action in writing without a meeting, each stockholder entitled to vote any shares on any matter to be voted upon at such meeting or in a written expression of such consent or dissent may exercise such voting right either in person or by proxy appointed by an instrument in writing, which shall be filed with the secretary of the meeting before being voted, or, with the written evidence of the consent or dissent which shall be delivered to the Secretary of the Corporation for filing with the minutes of proceedings of stockholders of the Corporation. Such proxies shall entitle the holders thereof to vote at any adjournment of such meeting, but shall not be valid after the final adjournment thereof. All questions regarding the qualifications of voters, the validity of proxies, and the acceptance or rejection of votes shall be decided by two inspectors of election who shall be appointed by the

Board of Directors, or if not so appointed, then by the presiding officer of the meeting. No proxy shall be voted or acted upon after three years from its date unless said proxy provides for a longer period. Except as otherwise expressly required by statute, the vote on any question need not be by written ballot.

Section 7. Voting List of Stockholders. The officer who shall have charge of the stock ledger of the Corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at such meeting, arranged in alphabetical order and showing the address and the number of shares registered in the name of each such stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the city where such meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present and entitled to vote at the meeting. The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger or the list of stockholders referred to above or the books of the Corporation, or to vote in person or by proxy at any meeting of stockholders.

Section 8. Conduct of Meeting. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the presiding officer of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding officer are appropriate for the proper conduct of the meeting. Unless and to the extent determined by the Board of Directors or the presiding officer of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

Section 9. Consent of Stockholders in Lieu of Meeting. Unless otherwise provided by law or in the Certificate of Incorporation, any action required by law to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Evidence of such consent in writing shall be delivered to the Secretary of the Corporation for filing with the minutes of proceedings of stockholders of the Corporation. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders entitled to vote on the particular matter and who have not consented in writing.

ARTICLE III

DIRECTORS

Section 1. Powers and Duties of the Board of Directors. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. The Board may adopt such rules and regulations for that purpose and for the conduct of its meetings as may deem proper. The Board may exercise and shall be vested with the powers of the Corporation insofar as not inconsistent with law, the Certificate of Incorporation or these By-laws.

Section 2. Number and Qualification. The number of directors shall be at least one but no more than eleven, as determined from time to time by resolution of the Board of Directors. The first Board shall consist of two members until so changed by resolution of the Board of Directors. Directors need not be stockholders of the Corporation. As used in these By-laws, the term "whole Board of Directors" means the number of directors the Corporation would have if there were no vacancies in the Board of Directors.

Section 3. Election and Term. Except as otherwise provided by law or by these By-laws, the directors of the Corporation elected after the adoption of these By-laws shall be elected at the annual meeting of stockholders in each year. Each director shall be elected to serve until the next annual meeting of stockholders and until a successor shall have been duly elected and qualified, subject to the provisions of ARTICLE VI hereof.

Section 4. Regular Meetings. Regular meetings of the Board of Directors shall be held at such time and place, either within or outside of the State of Delaware, as shall be stated in the notice of such meeting.

Section 5. Special Meetings. Special meetings of the Board of Directors may, unless otherwise expressly provided by law, be called from time to time by the Chairman of the Board, the Chief Executive Officer, the Secretary or by a written call signed by a majority of the whole Board or, if there shall not be in office a number of directors constituting a majority of the whole Board, then by any one or more directors, and filed with the Secretary. Each special meeting of the Board shall be held at such place, either within or outside of the State of Delaware, as shall be designated in the notice of such meeting.

Section 6. Notice of Meeting. Notice of a regular or special meeting of the Board of Directors, stating the place, date and hour thereof, shall, except as otherwise expressly provided by law or as provided in Section 2 of ARTICLE VIII hereof, be given by sending the same to each director by any of courier delivery at such director's residence or business address, transmitting the same to such director by e-mail at such director's e-mail address provided to the Secretary or telephone line facsimile transmission to such number as such director shall have provided to the Secretary or by delivering the same to such director personally, in any such case at any time on or before forty-eight (48) hours in advance of the meeting. Notice of a particular meeting may be given to different directors by different means permitted hereby or by any other means permitted by the General Corporation law of the State of Delaware (the "DGCL").

Section 7. Quorum, Vote Required. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, at any meeting of the Board of Directors a majority of the whole Board of Directors shall constitute a quorum for the transaction of business. If less than a quorum be present at a meeting, the directors present may adjourn the meeting and the meeting may be held as adjourned without further notice. If a quorum be present at a meeting and the meeting is adjourned to reconvene at a later time and/or date, no notice need be given other than announcement at the meeting. Except as otherwise provided by law, by the Certificate of Incorporation or by these By-laws, when a quorum is present at any meeting of the Board of Directors, the affirmative vote of a majority of the directors present shall decide any question brought before such meeting, and the action of such number of directors shall be deemed to be the action of the Board.

Section 8. Organization. Each meeting of the Board of Directors shall be presided over by the Chairman of the Board or, in the absence of the Chairman of the Board or if there shall be no Chairman of the Board, by the Chief Executive Officer, or in the absence of both the Chairman of the Board and the Chief Executive Officer, by any person selected to preside by vote of a majority of the directors present. The Secretary or, in the absence of the Secretary, an Assistant Secretary, or in the absence of both the Secretary and Assistant Secretary, any person designated by the chairman of the meeting, shall act as secretary of the meeting.

Section 9. Committees. The Board of Directors may, by resolution or resolutions adopted by a majority of the whole Board of Directors, designate one or more committees, each committee to consist of two or more of the directors of the Corporation, which, to the extent provided in such resolution or resolutions, shall have and may exercise the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may have the power to authorize the seal of the Corporation to be affixed to all papers which may require it; but, except as otherwise permitted by law, no such committee shall have the power or authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amending the By-laws of the Corporation; and, unless the resolution or resolutions, these By-laws or the Certificate of Incorporation, as amended from time to time, expressly so provides, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Except as the Board of Directors may otherwise determine at any time or from time to time, any such committee may make rules for the conduct of its business, but in the absence of such rules its business shall be conducted so far as possible in the same manner as is provided in these By-laws for the Board of Directors. All members of such committees shall hold their committee offices at the pleasure of the Board of Directors. The committees shall keep regular minutes of their proceedings and report the same to the Board when required.

Section 10. Written Consents. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board or of such committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board or committee.

Section 11. Meeting by Conference Telephone. Members of the Board of Directors or of any committee designated by such Board may participate in a meeting of the Board or such committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting in this manner shall constitute presence in person at such meeting.

Section 12. Compensation of Directors. The members of the Board of Directors shall be entitled to such compensation, if any, for their services in such capacity as may be approved from time to time by the Board of Directors. Members of the Board of Directors shall be entitled to reimbursement of the reasonable expenses such members incurred in connection with attending meetings of the Board of Directors. Members of the Board of Directors may receive such stock, stock options or other equity awards as the Board of Directors may approve from time to time. Nothing in these By-laws shall affect or limit any fees, salaries or other compensation that may be paid or payable to such members in any other capacity. Members of special or standing committees may be allowed like reimbursement of the reasonable expenses such members incurred in connection with attending committee meetings.

ARTICLE IV

EXECUTIVE COMMITTEE

Section 1. How Constituted and Powers. Subject to the provisions of Section 9 of ARTICLE III hereof, the Board of Directors may designate three or more of its number to constitute an Executive Committee, one of whom shall be chosen as Chairman. The Executive Committee shall serve at the pleasure of the Board and shall have and may exercise all the powers and authority of the Board (except as otherwise provided by the laws of the State of Delaware, the Certificate of Incorporation, as amended, or these By-laws), including the power to authorize the seal of the Corporation to be affixed to all papers which may require it, to the extent and with respect to those matters affecting the business and affairs of the Corporation which may be designated by resolution passed by a majority of the whole Board from time to time.

Section 2. Organization, Etc. At all meetings of the Executive Committee the Chairman thereof shall preside. The Committee shall keep a record of its acts and proceedings and report the same from time to time to the Board of Directors.

Section 3. Meetings. Regular meetings of the Executive Committee, of which no notice shall be necessary, shall be held on such dates, and at such times and places, as shall be fixed by a resolution adopted by the vote of a majority of the whole Committee. Special meetings of the Committee may be called by any member of the Committee. Notice of each special meeting of the Committee shall be given in the same manner provided by Section 6 of Article III hereof for special meetings of the Board of Directors. Every such notice shall state the place, date and hour, but need not state the purposes, of the meeting. Notice of any such meeting need not be given to

any member of the Committee, however, if waived by such member in writing or if he shall attend such meeting in person except when such person attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened; and, subject to the foregoing exception, any meeting of the committee shall be a legal meeting without any notice thereof having been given, if all the members of the Committee shall be present thereat.

Section 4. Quorum and Manner of Acting. Unless otherwise provided by resolution of the Board of Directors, the presence of all members of the Executive Committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at a meeting at which a quorum is present shall be the act of the Executive Committee.

Section 5. Vacancies. Any vacancy in the Executive Committee shall be filled by a vote of a majority of the whole Board of Directors.

ARTICLE V

OFFICERS

Section 1. Number and Election. The officers of the Corporation shall be elected by the Board of Directors and shall be a Chairman of the Board, a Chief Executive Officer and a Secretary. The Board of Directors may also elect one or more Vice Chairmen of the Board, President, a Treasurer, a Controller and any one or more Assistant Controllers, Vice Presidents, Assistant Secretaries and Assistant Treasurers. Any number of offices may be held by the same person, but no officer shall execute, acknowledge or verify any instrument in more than one capacity.

Section 2. Term of Office and Qualification. The officers not already in office upon the incorporation of the Corporation shall be elected by the Board at the first meeting thereof and after each annual meeting of stockholders. In the event of the failure so to elect any such officer, such officer may be elected at any subsequent meeting (regular or special) of the Board. Each officer except such officers as may be appointed in accordance with the provisions of Section 3 of this ARTICLE V, shall hold office until the next annual election of officers and until such officer's successor shall have been duly elected and qualified, subject, however, to the provisions of ARTICLE VI hereof. None of the officers of the Corporation need be a director.

Section 3. Other Officers. The Board of Directors may from time to time appoint such other officers and agents as the Board may deem necessary for the transaction of the business of the Corporation. Such officers and agents shall hold office for such period, have such authority and perform such duties as shall be determined from time to time by the Chairman of the Board, the Chief Executive Officer, the Board of Directors or by any other person as provided in these By-laws.

Section 4. The Chairman of the Board. The Chairman of the Board shall have general supervision, direction and control of the business and all other officers of the Corporation. He or she shall, if present, preside at all meetings of stockholders and of the Board of Directors. The Chairman of the Board shall formulate and submit to the Board of Directors matters of general

policy for the Corporation. The Chairman shall see that all orders and resolutions of the Board of Directors are carried into effect, and shall keep the Board of Directors fully informed of, and shall freely consult with the directors concerning, the business of the Corporation. The Chairman of the Board shall have the power to appoint and remove subordinate officers, agents and employees, except those elected or appointed by the Board of Directors. The Chairman of the Board may sign, with the Chief Executive Officer, the President or the Secretary or any other authorized officer of the Corporation thereunto authorized by these By-laws or the Board of Directors, certificates for shares and any deeds, bonds, mortgages, contracts, checks, notes, drafts or other instruments which the Board of Directors has authorized to be executed, except in cases where the signing and execution thereof has been expressly delegated by the Board of Directors to some other officer or agent of the Corporation, or shall be required by law to be otherwise executed. The Chairman of the Board or his or her designee shall have full power and authority to cast any votes which the Corporation is entitled to cast as a stockholder of another corporation or member of another limited liability company. In addition, the Chairman of the Board shall have the powers and the duties delegated to the Chairman of the Board by these By-laws and the laws of Delaware and such other powers and duties as the Board of Directors may from time to time determine. The Board of Directors may designate the Chairman of the Board as an executive Chairman of the Board or as a non-executive Chairman of the Board.

Section 5. Vice Chairman of the Board. Each Vice Chairman of the Board, if one or more shall be elected by the Board of Directors, shall perform such duties as from time to time may be assigned to such Vice Chairman of the Board by the Board of Directors or the Chairman of the Board.

Section 6. The Chief Executive Officer. The Chief Executive Officer shall have general authority and responsibility to supervise, direct and control the day-to-day conduct of the business of the Corporation, subject to the control of the Chairman of the Board and the Board of Directors and of any duly authorized committee of Directors. The Chief Executive Officer shall have the power to appoint and remove subordinate officers, agents and employees, except those elected or appointed by the Board of Directors and those appointed by the Chairman of the Board. The Chief Executive Officer shall have the power to fix the compensation, including, if applicable, salaries and bonuses, of all officers, agents and employees of the Corporation, other than any officer elected by the Board of Directors. The Chief Executive Officer shall keep the Board of Directors and the Chairman of the Board fully informed and shall consult them concerning the business of the Company. The Chief Executive Officer may sign, with the Secretary or any other officer of the Company thereunto duly authorized by the Board of Directors, certificates for shares and any deeds, bonds, mortgages, contracts, checks, notes, drafts or other instruments which the Board of Directors has authorized to be executed, except in cases where the signing and execution thereof has been expressly delegated by the Board of Directors to some other officer or agent of the Corporation, or shall be required by law to be otherwise executed. The Chief Executive Officer shall preside at all meetings of the stockholders and of the Board of Directors in the absence of the Chairman of the Board, and shall perform such other duties as usually appertain to the office of a chief executive officer under Delaware law or as from time to time may be assigned by the Board of Directors.

Section 7. The President. If the Chief Executive Officer is not also the President, then the President shall have the general powers and duties of management usually vested in the

office of president of a corporation incorporated under the DGCL that has a separate chief executive officer with powers similar to those of the Chief Executive Officer. The President shall be the chief operating officer of the Company, subject to the control of the Chairman of the Board, the Chief Executive Officer, the Board of Directors, and any duly authorized committee of directors. The President shall, subject to the control of and approval by the Chief Executive Officer, have the power to appoint and remove subordinate officers, agents and employees, except those elected or appointed by the Board of Directors or appointed by the Chairman of the Board or the Chief Executive Officer. The President shall keep the Chairman of the Board and the Chief Executive Officer fully informed and shall consult them concerning the business of the Company. The President may sign, with the Secretary or any other officer of the Company thereunto authorized by the Board of Directors, certificates for shares and any deeds, bonds, mortgages, contracts, checks, notes, drafts or other instruments which the Board of Directors has authorized to be executed, except in cases where the signing and execution thereof has been expressly delegated by the Board of Directors to some other officer or agent of the Company, or shall be required by law to be otherwise executed. The President shall perform such other duties as usually appertain to the office of chief operating officer of a corporation incorporated under the DGCL or as may be prescribed by the Board of Directors, the Chairman of the Board or the Chief Executive Officer. In the absence of the Chairman of the Board and the Chief Executive Officer, the President shall preside at all meetings of the stockholders and, if the President is a director, at all meetings of the Board of Directors.

Section 8. Vice Presidents. Each Vice President shall perform such duties as from time to time may be assigned to such Vice President by the Board of Directors, the Chairman of the Board or the President or as may be prescribed by these By-laws. The Board of Directors may designate one or more Vice Presidents as Executive Vice Presidents or Senior Vice Presidents.

Section 9. The Secretary. The Secretary shall record or cause to be recorded in books provided for that purpose all the proceedings of the meetings of the Corporation including those of the stockholders, the Board of Directors and all committees thereof; shall see that all notices are duly given in accordance with the provisions of these By-laws and as required by law; shall be custodian of the records (other than financial) and of the seal of the Corporation and see that the seal is affixed to all documents the execution of which on behalf of the Corporation under its seal is duly authorized in accordance with the provisions of these By-laws; shall see that the books, reports, statements, certificates and all other documents and records required by law are properly kept and filed; and in general, the Secretary shall perform all duties incident to the office of Secretary and such other duties as may, from time to time, be assigned to the Secretary by the Board of Directors, the Chairman of the Board or the Chief Executive Officer.

Section 10. Assistant Secretaries. In the absence of the Secretary, or in case of the Secretary's inability to act, an Assistant Secretary designated by the Chairman of the Board, the Chief Executive Officer or the Board of Directors shall perform all the duties of the Secretary and, when so acting, shall have all the powers of the Secretary. The Assistant Secretaries shall perform such other duties as from time to time shall be assigned to them by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the Secretary.

Section 11. The Treasurer. The Treasurer shall have charge and custody of and be responsible for all funds and securities of the Corporation, and deposit all such funds in the

name of the Corporation in such banks, trust companies or other depositaries as shall be selected in accordance with the provisions of these By-laws; have general responsibility for the Corporation's accounting procedures and practices and for maintaining proper financial records, books and accounts; at all reasonable times exhibit the Treasurer's books of account and records to any of the directors of the Corporation upon application during business hours at the place where such books and records are kept; receive, and give receipts for, monies due and payable to the Corporation from any source whatsoever; and in general, perform all the duties incident to the office of Treasurer and such other duties as from time to time may be assigned to the Treasurer by the Board of Directors, the Chairman of the Board or the Chief Executive Officer.

Section 12. Assistant Treasurers. In the absence of the Treasurer, or in case of the Treasurer's inability to act, an Assistant Treasurer designated by the Chairman of the Board, the Chief Executive Officer or the Board of Directors shall perform all the duties of the Treasurer and, when so acting, shall have all the powers of the Treasurer. The Assistant Treasurers shall perform such other duties as from time to time shall be assigned to them by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the Treasurer.

Section 13. The Controller. The Controller shall be the chief accounting officer of the Corporation and shall keep adequate and correct accounts of the business transactions of the Corporation (except those accounts kept by the Treasurer as provided in these By-laws), including accounts of the assets, liabilities, gains, losses, capital and shares of the Corporation; at all reasonable times exhibit the Controller's books of account and records to any of the directors of the Corporation upon application during business hours at the place where such books and records are kept; and in general, perform all the duties incident to the office of Controller and such other duties as from time to time may be assigned to the Controller by the Board of Directors, Chairman of the Board, the Chief Executive Officer or the Treasurer.

Section 14. Compensation. The compensation of all officers, agents and employees of the Corporation shall be fixed from time to time by the Board of Directors, or pursuant to authority of general or special resolutions of the Board. No officer shall be prevented from receiving compensation by reason of the fact that he is also a director of the Corporation or a member of any committee of the Board.

Section 15. Bonds. The Board of Directors shall have the power to require any officer or agent of the Corporation to give a bond for the faithful discharge of such officer's or agent's duties in such form, in such amount and with such surety or sureties as the Board may deem advisable.

ARTICLE VI

RESIGNATION AND REMOVALS

Section 1. Resignations. Any director, officer or agent of the Corporation may, subject to contrary provision in any applicable contract, resign at any time by giving written notice to the Board of Directors or to the Chairman of the Board, the Chief Executive Officer or to the Secretary of the Corporation, and any member of any committee may resign at any time by giving notice either as aforesaid or to the committee of which he is a member or to the chairman thereof.

Any such resignation shall take effect at the time specified therein or, if the time be not specified, upon receipt thereof; and unless otherwise specified therein, acceptance of such resignation shall not be necessary to make it effective.

Section 2. Removals. The holders of a majority of the outstanding shares of such class or classes or series entitled to vote at an election of directors may remove any director with respect to whom such stockholders have the right to fill the vacancy created by such removal or may remove the entire number of such members of the Board of Directors, with or without cause, at any meeting called for that purpose, and may elect the successor to such director or the successors to such directors. The Board of Directors or any duly authorized committee thereof, by vote of a majority of the whole Board or of such committee, may remove from office any officer, agent or member of any committee, elected or appointed by it.

ARTICLE VII

VACANCIES

Section 1. Among Directors. If the office of any director becomes vacant at any time by reason of death, resignation, retirement, disqualification, removal from office or otherwise, or if any new directorship is created by any increase in the authorized number of directors, unless otherwise required by law the directors then in office shall not be entitled to choose a successor or fill the newly created directorship and such vacancy may be filled only by the stockholders entitled to vote in an election to fill such vacancy or such newly created directorship at any meeting thereof after such office becomes vacant or after the creation of such new directorship.

Section 2. Among Officers, Etc. If the office of the Chairman of the Board, the Chief Executive Officer, any Vice President, the Treasurer, or of any other officer or agent or member of any committee, becomes vacant at any time by reason of death, resignation, retirement, disqualification, removal from office, or otherwise, such vacancy or vacancies shall be filled by the Board of Directors or as authorized by it.

ARTICLE VIII

NOTICES

Section 1. Manner of Giving. Whenever, under the provisions of law, or of the Certificate of Incorporation of the corporation or these By-laws, written notice is required to be given to any director or stockholder, it shall not be construed to mean personal notice, but: (a) such notice may be given by mail, addressed to such director or stockholder, at such person’s address as it appears on the records of the Corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail or delivered to a nationally recognized courier service; and (b) unless written notice by mail is required by law, such notice may also be given by commercial delivery service, facsimile transmission, electronic means or similar means addressed to such director or stockholder at such person’s address as it appears on the records of the Corporation, in which case such notice shall be deemed to be given when delivered into the control of the persons charged with effecting such transmission, the transmission charge to be paid by the Corporation or the person sending such notice and not by the addressee. Oral notice or other in-hand delivery, in person or by telephone, shall be deemed given at the time it is actually given.

Section 2. Waiver of Notice. Whenever under the provisions of these By-laws, the Certificate of Incorporation, or any of the laws of the State of Delaware, the stockholders, directors or members of a committee of directors are authorized to hold any meeting or take any action after notice or after the lapse of any prescribed period of time, a waiver thereof, in writing, signed by the person or persons entitled to such notice or lapse of time, whether before or after the time of meeting or action stated therein, shall be deemed equivalent thereto. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors, or members of any committee of directors need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these By-laws. The presence at any meeting of a person or persons entitled to notice thereof shall be deemed a waiver of such notice as to such person or persons, except when such person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

ARTICLE IX

CAPITAL STOCK

Section 1. Form and Issuance. Certificates of stock shall be issued in such form as may be approved by the Board of Directors and shall be signed by, or in the name of the Corporation by, the Chairman of the Board, the Chief Executive Officer or the President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation. Any or all of the signatures on such certificates may be facsimiles. In case any officer who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer at the date of issue unless determined otherwise by the Board generally or in any particular instance.

Section 2. Transfers of Stock. Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate of stock duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, subject to any agreement to which the holder of record of such certificate is a party or by which such holder is bound, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereby, cancel the old certificate and record the transaction upon its books. The Board of Directors shall have power and authority to make such other rules and regulations or amendments thereto as they may deem expedient concerning the issue, registration and transfer of certificates of stock and may appoint transfer agents and registrars thereof.

Section 3. Lost, Stolen or Destroyed Certificates. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon satisfactory proof of that fact by the person claiming the certificate or certificates of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the Board of Directors may, at its discretion, and as a condition precedent to the issuance thereof, require the

owner of such lost, stolen or destroyed certificate or certificates, or such owner's legal representative, to publicize the same in such manner as it shall direct and/or to give the Corporation a bond in such sum as the Board of Directors may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate or certificates alleged to have been lost, stolen or destroyed or with respect to the issuance of the new certificate or certificates.

Section 4. Fixing of Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty nor less than ten days before the date of such meeting, nor more than sixty days prior to any other action. Only such stockholders as shall be stockholders of record on the date so fixed shall be entitled to such notice of, and to vote at, such meeting and any adjournment thereof, or to receive payment of such dividend or other distribution, or to receive such allotment or rights, or to exercise such rights in respect of any such change, conversion or exchange of stock, or to participate in such other action, or to give such consent, as the case may be, notwithstanding any transfer of any stock on the books of the Corporation after any such record date fixed as aforesaid. The record date for determining stockholders entitled to express consent or dissent to corporate action in writing without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is delivered to the Corporation as provided by law. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however,* that the Board of Directors may fix a new record date for the adjourned meeting.

ARTICLE X

NEGOTIABLE INSTRUMENTS, CONTRACTS, ETC.

Section 1. Signatures on Checks, Etc. All checks, drafts, bills of exchange, notes or other instruments or orders for the payment of money or evidences of indebtedness shall be signed for or in the name of the Corporation by the Chairman of the Board, the Chief Executive Officer, the President, the Treasurer or such other officer or officers, person or persons as the Board of Directors may from time to time designate by resolution. The Board of Directors may by resolution determine that certain checks, drafts, bills of exchange, notes or other instruments or orders for the payment of money or evidences of indebtedness shall be signed by more than one person.

Section 2. Execution of Contracts, Deeds, Etc. The Board of Directors may authorize any officer or officers, agent or agents, in the name and on behalf of the Corporation, to enter into or execute and deliver any and all deeds, bonds, mortgages, contracts and other obligations or instruments, and such authority may be general or confined to specific instances.

Section 3. Loans. No loan shall be contracted on behalf of the Corporation and no evidences of indebtedness shall be issued in its name unless authorized or ratified by a resolution of the Board of Directors. Such authority or ratification may be general or confined to specific instances.

ARTICLE XI

CORPORATE SEAL

The seal of the Corporation shall have inscribed thereon the name of the Corporation, the year of its organization and the words “Corporate Seal - Delaware”. Such seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced in any manner whatsoever.

ARTICLE XII

FISCAL YEAR

The fiscal year of the Corporation shall be determined by the Board of Directors.

ARTICLE XIII

VOTING OF STOCK HELD

Unless otherwise provided by resolution of the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President may from time to time appoint an attorney or attorneys or agent or agents of the Corporation, in the name and on behalf of the Corporation to cast the votes which the Corporation may be entitled to cast as a stockholder or otherwise in any other corporation or association, any of whose stock or securities may be held by the Corporation, at meetings of the holders of the stock or other securities of such other corporations or associations, or to consent in writing to any action by any such other corporation or association, and may instruct the person or persons so appointed as to the manner of casting such votes or giving such consent, and may execute or cause to be executed on behalf of the Corporation and under its corporate seal, or otherwise, such written proxies, consents, waivers or other instruments as he may deem necessary or proper in the premises; or the Chairman of the Board, the Chief Executive Officer, or the President may attend in person any meeting of the holders of stock or other securities of any such other corporation or association and thereat vote or exercise any or all other powers of the Corporation as the holder of such stock or other securities of such other corporation or association, or may consent in writing to any action by any such other corporation or association.

ARTICLE XIV

INDEMNIFICATION OF OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS

(a) Each person now or hereafter a director, or officer of the Corporation and any person who now or hereafter serves at the request of the Corporation as a director or officer of another corporation in which it owns shares of capital stock or of which it is a creditor (and such person’s heirs, executors and administrators) shall be indemnified and held harmless by the

Corporation to the fullest extent allowed by the General Corporation Law of the State of Delaware (as the same exists or may hereafter be amended, but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment, unless such amendment requires narrower indemnification rights than such law permitted the Corporation to provide prior to such amendment) against all costs, expenses, judgments, fines, liabilities and amounts paid in settlement (including counsel fees) imposed upon or reasonably incurred by such person in connection with, or resulting from, any pending, threatened or completed action, suit, proceeding, claim or settlement thereof in which such person is or shall be made a party by reason of such person's being or having been a director or officer of the Corporation, or of such other corporation whether or not such person is serving as such at the time the same are instigated, except in relation to a claim, issue or matter in respect of an action by or in the right of the Corporation in which such person shall have been finally adjudged in such action, suit, or proceeding, to be liable to the Corporation, unless indemnification with respect to such matters is approved by an appropriate court as provided by the laws of the State of Delaware. The foregoing exception shall not, however, prevent a settlement by the Corporation or by such other corporation prior to the final adjudication when such settlement appears to be in the interests of the Corporation or such other corporation. Such rights of indemnification shall not be exclusive of other rights to which any person indemnified by this ARTICLE XIV may now or hereafter be entitled as a matter of law, under any By-law, agreement, vote of stockholder, or otherwise. The provisions of this ARTICLE XIV shall not limit the power of the Corporation to indemnify directors, officers, employees or agents of the Corporation as provided by the laws of the State of Delaware or other applicable law. The rights of indemnification provided by this ARTICLE XIV shall continue as to a director or officer after he or she has ceased to be a director or officer and shall inure to the benefit of his or her heirs, executors, administrators and personal representatives.

(b) The Board of Directors of the Corporation may, in its discretion, authorize the Corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation, as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this ARTICLE XIV.

(c) For purposes of this ARTICLE XIV, references to the Corporation shall include, in addition to the Corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this ARTICLE XIV with respect to the Corporation as he would have with respect to such constituent corporation if its separate existence had continued.

ARTICLE XV

AMENDMENTS

These By-laws may be amended or repealed by vote of the stockholders entitled to vote in the election of any directors. These By-laws may also be amended or repealed by the Board of Directors.

INOZYME PHARMA, INC.

SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT (this "***Agreement***"), dated as of November 9, 2018, by and among **INOZYME PHARMA, INC.**, a Delaware corporation (the "***Company***"), and the investors listed on **Exhibit A** hereto (referred to hereinafter as the "***Investors***" and each individually as an "***Investor***") amends and restates the Amended and Restated Investor Rights Agreement entered into as of April 13, 2017, by and among the Company and the Investors (defined therein) party thereto (the "***Prior Agreement***").

RECITALS

A. Certain of the Investors (the "***Existing Investors***") hold shares of the Company's Series A Convertible Preferred Stock, $0.0001 par value per share (the "***Series A Preferred Stock***"), pursuant to that certain Amended and Restated Series A Convertible Preferred Stock Purchase Agreement and possess registration rights, information rights, rights of first offer, and other rights pursuant to the Prior Agreement.

B. The Existing Investors are holders of a majority of the Registrable Securities of the Company (as defined in the Prior Agreement) and desire to amend and restate the Prior Agreement in its entirety and to accept the rights granted and obligations imposed pursuant to this Agreement in lieu of the rights granted and obligations imposed under the Prior Agreement.

C. Certain of the Investors are parties to that certain Series A-2 Preferred Stock Purchase Agreement of even date herewith by and among the Company and such Investors (the "***Purchase Agreement***"), under which certain of the Company's and such Investors' obligations are conditioned upon the execution and delivery of this Agreement by such Investors, Existing Investors holding at least a majority of the Registrable Securities, and the Company.

D. The parties wish to amend and restate the Prior Agreement on the terms provided herein.

The parties hereto agree as follows:

SECTION 1. GENERAL.

1.1 Definitions. As used in this Agreement the following terms shall have the following respective meanings:

(a) "***Affiliate***" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer or director of such Person or any investment fund or other Person now or hereafter existing which is controlled by one or more general partners, managing members, or equity holders of, shares the same management company with, or is under common management with, such Person. Notwithstanding the above, with respect to Novo Holdings A/S, in lieu of the above definition, the term "Affiliate" shall mean Novo Ventures (US) Inc. (together with Novo Holdings A/S, "***Novo***"), any partner,

executive officer or director of Novo or any venture capital fund or other person now or hereafter existing formed for the purpose of making investments in other persons that is controlled by or under common control with Novo, and for the avoidance of doubt, shall not include any other affiliate of Novo.

(b) "***Board***" shall mean the Company's Board of Directors.

(c) "***Business Day***" means any day other than a Saturday, Sunday or other day on which commercial banks in The City of New York are authorized by law or executive order to remain closed.

(d) "***Common Stock***" shall mean the Common Stock, par value $0.0001 per share, of the Company.

(e) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

(f) "***Form S-3***" means a Registration Statement on Form S-3 under the Securities Act, as such form is in effect on the date hereof or any successor or similar registration form under the Securities Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by the registrant thereunder with the SEC.

(g) "***Holder***" means any person owning of record Registrable Securities that have not been sold to the public or any assignee of record of such Registrable Securities in accordance with Section 2.9 hereof.

(h) "***Initial Public Offering***" means the closing of the Company's first bona fide, firm commitment underwritten public offering of the Common Stock registered under the Securities Act.

(i) "***Major Investor***" means any Investor who holds at least 3,139,860 shares of Preferred Stock.

(j) "***Person***" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(k) "***Preferred Stock***" means, collectively, the Series A Preferred Stock and the Series A-2 Preferred Stock.

(l) "***Qualified Public Offering***" shall have the meaning prescribed in the Company's Amended and Restated Certificate of Incorporation of even date herewith, as the same may be amended from time to time (the "***Charter***").

(m) "***Register***," "***registered***," and "***registration***" refer to a registration effected by preparing and filing with the SEC a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document by the SEC.

(n) "***Registrable Securities***" means (a) Common Stock of the Company issuable or issued upon conversion of Preferred Stock and (b) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, any securities described in the immediately preceding clause (a) or this clause (b). Notwithstanding the foregoing, Registrable Securities shall not include any securities (i) sold by a person to the public either pursuant to a registration statement ordered effective by the SEC, Rule 144 under the Securities Act or another exemption from registration under the Securities Act, (ii) sold in a private transaction in which the transferor's rights under Section 2 of this Agreement are not assigned, or (iii) issued upon conversion of Preferred Stock pursuant to a Special Mandatory Conversion.

(o) "***Registrable Securities then outstanding***" shall be the number of shares of the Common Stock that are Registrable Securities and either (a) are then issued and outstanding or (b) are issuable pursuant to then exercisable or convertible securities.

(p) "***Registration Expenses***" shall mean all expenses incurred by the Company in complying with Sections 2.2, 2.3 and 2.4 hereof, including, without limitation, all registration, qualification and filing fees, FINRA fees and expenses, printing expenses, fees and disbursements of counsel for the Company, reasonable fees and disbursements not to exceed thirty-five thousand dollars ($35,000) of a single counsel for the Holders, blue sky fees and expenses and the expense of any regular or special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company which shall be paid in any event by the Company).

(q) "***SEC***" means the Securities and Exchange Commission.

(r) "***Securities Act***" shall mean the Securities Act of 1933, as amended.

(s) "***Selling Expenses***" shall mean all underwriting discounts and selling commissions applicable to the sale of Registrable Securities.

(t) "***Series A-2 Preferred Stock***" shall mean shares of the Company's Series A-2 Convertible Preferred Stock, $0.0001 par value per share.

(u) "***Special Mandatory Conversion***" shall have the meaning provided in the Charter.

(v) "***Special Registration Statement***" shall mean (i) a registration statement relating to any employee benefit plan or (ii) with respect to any corporate reorganization or transaction under Rule 145 under the Securities Act, any registration statements related to the issuance or resale of securities issued in such a transaction or (iii) a registration related to stock issued upon conversion of debt securities.

SECTION 2. REGISTRATION; RESTRICTIONS ON TRANSFER.

2.1 Restrictions on Transfer.

(a) Each Holder agrees not to make any disposition of all or any portion of the Preferred Stock or Registrable Securities unless and until:

(i) there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(ii) (A) if such transfer is prior to the Company's Initial Public Offering, the transferee has agreed in writing to be bound by the terms of this Agreement, (B) such Holder shall have notified the Company of the proposed disposition, and (C) if reasonably requested by the Company, such Holder shall have furnished the Company, at its expense, with an opinion of counsel, reasonably satisfactory to the Company, or any other evidence that the Company may require (which may include a "no action" letter from the staff of the SEC) that such disposition will not require registration of such shares under the Securities Act. The Company will not require opinions of counsel for transactions made pursuant to Rule 144 under the Securities Act unless the Holder is an "affiliate" (as defined for purposes of Rule 144 under the Securities Act) of the Company or the Company believes in good faith that there is a substantial question about whether or not the Holder is such an affiliate.

(b) Notwithstanding the provisions of subsection (a) above, no such restriction shall apply to a transfer by a Holder that is (A) a partnership transferring by means of distribution to its partners or former partners in accordance with partnership interests, (B) a corporation transferring to a wholly-owned subsidiary or a parent corporation that owns all of the capital stock of the Holder, (C) a limited liability company transferring by means of distribution to its members or former members in accordance with their interest in the limited liability company, (D) an individual transferring to the Holder's family member or a trust for the benefit of an individual Holder or members of such Holder's family or (E) a Holder transferring to an Affiliate of such Holder; *provided* that in each such case the transferee will agree in writing to be subject to the terms of this Agreement to the same extent as if he, she or it were an original Holder hereunder if such transfer is prior to the Company's Initial Public Offering.

(c) Each certificate representing Preferred Stock or Registrable Securities shall be stamped or otherwise imprinted with legends substantially similar to the following (in addition to any legend required under applicable state securities laws):

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "***ACT***") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.

THE SALE, PLEDGE, HYPOTHECATION OR TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE IS SUBJECT TO THE TERMS AND CONDITIONS OF A CERTAIN INVESTOR

RIGHTS AGREEMENT BY AND BETWEEN THE STOCKHOLDER AND THE COMPANY. COPIES OF SUCH AGREEMENT MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY.

(d) The Company shall be obligated to reissue promptly unlegended certificates at the request of any Holder thereof if the Company has completed its Initial Public Offering and the Holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company) reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification and legend and in circumstances in which the Holder would not be required to file a Form 144 with the SEC to claim the "safe harbor" exemption from registration under the Securities Act afforded by Rule 144 under the Securities Act, whether or not in fact such Holder is claiming such safe harbor exemption, *provided that* the second legend listed above shall be removed only at such time as the Holder of such certificate is no longer subject to any restrictions under this Agreement.

(e) Any legend endorsed on an instrument pursuant to applicable state securities laws and the stop-transfer instructions with respect to such securities shall be removed upon receipt by the Company of an order of the appropriate blue sky authority authorizing such removal or advice of counsel to the Company that such legend may lawfully be removed.

2.2 Demand Registration.

(a) Subject to the conditions of this Section 2.2, if the Company shall receive a written request from the Holders of 56% of the Registrable Securities (the "***Initiating Holders***") that the Company file a registration statement under the Securities Act covering the registration of all or a part of the Registrable Securities having (i) an anticipated aggregate offering price, net of underwriting discounts and commissions, of not less than $50,000,000 (if the Company has not yet completed its Initial Public Offering) or (ii) an anticipated aggregate offering price, net of underwriting discounts and commissions, of not less than $10,000,000 (after the Company completes its Initial Public Offering), then the Company shall, within 30 days of the receipt thereof, give written notice of such request to all Holders and, subject to the limitations of this Section 2.2, effect, as expeditiously as reasonably possible, the registration under the Securities Act of all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holder or Holders joining in such request as specified by notice given by each such Holder to the Company within 20 days after receipt of such written notice from the Company.

(b) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.2 or any request pursuant to Section 2.4 and the Company shall include such information in the written notice referred to in Section 2.2(a) or Section 2.4(a), as applicable. In such event, the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter

or underwriters selected for such underwriting by the Holders of a majority of the Registrable Securities held by all Initiating Holders (which underwriter or underwriters shall be reasonably acceptable to the Company). Notwithstanding any other provision of this Section 2.2 or Section 2.4, if the underwriter advises the Company that marketing factors require a limitation of the number of securities to be underwritten (including Registrable Securities) then the Company shall so advise all Holders of Registrable Securities that would otherwise be underwritten pursuant hereto, and the number of shares of Common Stock that may be included in the underwriting shall be allocated to the Holders of such Registrable Securities on a *pro rata* basis based on the number of Registrable Securities held by all such Holders (including the Initiating Holders); *provided*, *however*, that the number of shares of Registrable Securities to be included in such underwriting and registration shall not be reduced unless all other securities of the Company and securities of any other selling stockholders proposed to be sold by the Company or such selling stockholders are first entirely excluded from the underwriting and registration. Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from the registration.

(c) The Company shall not be required to effect a registration pursuant to this Section 2.2:

(i) prior to the earlier of (A) the third anniversary of the date of this Agreement or (B) six months following the Initial Public Offering;

(ii) after the Company has effected two (2) registrations pursuant to this Section 2.2, and such registrations have been declared or ordered effective by the SEC;

(iii) during the period starting with the date of filing with the SEC of, and ending on the date 180 days following the effective date of the registration statement pertaining to the Initial Public Offering (or such longer period as may be determined pursuant to Section 2.11 hereof); *provided* that the Company makes reasonable good faith efforts to cause such registration statement to become effective;

(iv) if within 30 days of receipt of a written request from Initiating Holders pursuant to Section 2.2(a), the Company, gives notice to the Holders of the company's intention to file a registration statement for its Initial Offering within 60 days;

(v) if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.2 a certificate signed by the Chairman of the Board or the Chief Executive Officer of the Company stating that in the good faith judgment of the Board, it would be seriously detrimental to the Company and its stockholders for such registration statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than 90 days after receipt of the request of the Initiating Holders; *provided* that such right to delay a request shall be exercised by the Company not more than twice in any 12 month period;

(vi) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.4 below; or

(vii) in any particular jurisdiction in which the Company would be required to qualify to do business, to execute a general consent to service of process or to subject itself to taxation in effecting such registration, qualification or compliance.

2.3 Piggyback Registrations. The Company shall notify all Holders of Registrable Securities in writing at least 20 days prior to the filing by the Company of any registration statement under the Securities Act for purposes of a public offering of securities of the Company (including, but not limited to, registration statements relating to secondary offerings of securities of the Company for stockholders other than the Holders, but excluding Special Registration Statements), and will afford each such Holder an opportunity to include in such registration statement all or part of such Registrable Securities held by such Holder. Each Holder desiring to include in any such registration statement all or any part of the Registrable Securities held by it shall, within 15 days after the above-described notice from the Company, so notify the Company in writing. Such notice shall state the intended method of disposition of the Registrable Securities by such Holder. If a Holder decides not to include all of its Registrable Securities in such registration statement filed by the Company, such Holder shall nevertheless continue to have the right to include any of its Registrable Securities in any subsequent registration statement or registration statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein.

(a) Underwriting. If the registration statement of which the Company gives notice under this Section 2.3 is for an underwritten offering, the Company shall so advise the Holders of Registrable Securities. In such event, the right of any such Holder to include Registrable Securities in a registration pursuant to this Section 2.3 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding any other provision of this Agreement, if the underwriters determine in good faith that marketing factors require a limitation of the number of shares to be underwritten, the number of shares that may be included in the underwriting shall be allocated, first, to the Company; second, to the Holders on a *pro rata* basis based on the total number of Registrable Securities held by the Holders who propose to include their Registrable Securities in such underwriting; and third, to any stockholder of the Company (other than a Holder) on a *pro rata* basis; *provided*, *however,* that no such reduction shall reduce the amount of securities of the selling Holders included in the registration below twenty-five percent (25%) of the total amount of securities included in such registration, unless such offering is the Initial Public Offering and such registration does not include shares of any other selling stockholders, in which event any or all of the Registrable Securities of the Holders may be excluded in accordance with the immediately preceding clause. In no event will shares of any other selling stockholder be included in such registration that would reduce the number of shares that may be included by Holders without the written consent of Holders of a majority of the Registrable Securities proposed to be sold in the offering. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter, delivered at least ten business days prior to the effective date of the registration statement. Any Registrable Securities excluded or withdrawn from such underwriting shall be excluded and withdrawn from the registration. For any Holder which is a partnership, limited liability company or corporation, the

partners, retired partners, members, retired members and stockholders of such Holder, or the estates and family members of any such partners, retired partners, members and retired members and any trusts for the benefit of any of the foregoing person shall be deemed to be a single "Holder," and any *pro rata* reduction with respect to such "Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "Holder," as defined in this sentence.

(b) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.3 whether or not any Holder has elected to include securities in such registration, and shall promptly notify any Holder that has elected to include Registrable Securities in such registration of such termination or withdrawal. The Registration Expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.5 hereof.

2.4 Form S-3 Registration. In case the Company shall receive from any Holder or Holders of Registrable Securities a written request or requests that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders of Registrable Securities; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within 15 days after receipt of such written notice from the Company; *provided, however*, that the Company shall not be obligated to effect any such registration, qualification or compliance pursuant to this Section 2.4:

(i) if Form S-3 is unavailable for such offering by the Holders;

(ii) if the Holders, together with the holders of any other securities of the Company entitled to include their securities in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public of less than one million dollars ($1,000,000);

(iii) if within 30 days of receipt of a written request from any Holder or Holders pursuant to this Section 2.4, the Company gives notice to such Holder or Holders of the Company's intention to make a public offering of its securities within 90 days, other than pursuant to a Special Registration Statement;

(iv) if the Company shall furnish to the Holders a certificate signed by the Chairman of the Board or the Chief Executive Officer of the Company stating that in the good faith judgment of the Board of the Company, it would be seriously detrimental to the Company and its stockholders for such Form S-3 registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period

of not more than 90 days after receipt of the request of the Holder or Holders under this Section 2.4; *provided*, that such right to delay a request shall be exercised by the Company not more than twice in any 12 month period;

(v) if the Company has, within the 12 month period preceding the date of such request, already effected two registrations on Form S-3 for the Holders pursuant to this Section 2.4; or

(vi) in any particular jurisdiction in which the Company would be required to qualify to do business, to execute a general consent to service of process or to subject itself to taxation in effecting such registration, qualification or compliance.

(c) Subject to the foregoing, the Company shall file a Form S-3 registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the requests of the Holders. Registrations effected pursuant to this Section 2.4 shall not be counted as demands for registration or registrations effected pursuant to Section 2.2.

2.5 Expenses of Registration. Except as specifically provided herein, all Registration Expenses incurred in connection with any registration, qualification or compliance pursuant to Section 2.2, 2.3 or 2.4 herein shall be borne by the Company. All Selling Expenses incurred in connection with any registrations hereunder, shall be borne by the holders of the securities so registered *pro rata* on the basis of the number of shares so registered. The Company shall not, however, be required to pay for expenses of any registration proceeding begun pursuant to Section 2.2 or 2.4, the request of which has been subsequently withdrawn by the Initiating Holders unless (a) the withdrawal is based upon material adverse information concerning the Company of which the Initiating Holders were unaware at the time of such request or (b) the Holders of a majority of Registrable Securities agree to deem such registration to have been effected as of the date of such withdrawal for purposes of determining whether the Company shall be obligated pursuant to Section 2.2(c)(ii) or 2.4(b)(v), as applicable, to undertake any subsequent registration, in which event such withdrawn registration shall be deemed to have been ordered effective by the SEC for purposes of determining whether the Company shall be obligated pursuant to Sections 2.2(c)(ii) and 2.4(b), as applicable, to undertake any subsequent registration. If the Holders are required to pay the Registration Expenses, such expenses shall be borne by the holders of securities (including Registrable Securities) requesting such registration in proportion to the number of shares for which registration was requested. If the Company is required to pay the Registration Expenses of a withdrawn offering pursuant to clause (a) above, then such registration shall not be deemed to have been effected for purposes of determining whether the Company shall be obligated pursuant to Section 2.2(c)(ii) or 2.4(b)(v), as applicable, to undertake any subsequent registration.

2.6 Obligations of the Company. Whenever required to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use all reasonable efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for up to 30 days or, if earlier, until the

Holder or Holders have completed the distribution related thereto; provided, however, that at any time, upon written notice to the participating Holders and for a period not to exceed sixty (60) days thereafter (the "***Suspension Period***"), the Company may delay the filing or effectiveness of any registration statement or suspend the use of any registration statement (and the participating Holders hereby agree not to offer or sell any Registrable Securities pursuant to such registration statement during the Suspension Period) if the Company reasonably believes that there is or may be in existence material nonpublic information or events involving the Company, the failure of which to be disclosed in the prospectus included in the registration statement could result in a Violation (as defined below). In the event that the Company shall exercise its right to suspend the use of a registration statement and prospectus hereunder, the applicable time period during which the registration statement is to remain effective shall be extended by a period of time equal to the duration of the Suspension Period. The Company may extend the Suspension Period for an additional consecutive 60 days with the consent of the holders of a majority of the Registrable Securities registered under the applicable registration statement, which consent shall not be unreasonably withheld. If so directed by the Company, all Holders registering shares under such registration statement shall (i) not offer to sell any Registrable Securities pursuant to the registration statement during the Suspension Period after receiving notice of such delay or suspension; and (ii) use their reasonable efforts to deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in such Holders' possession, of the prospectus relating to such Registrable Securities current at the time of receipt of such notice. Notwithstanding the foregoing, the Company shall not be required to file, cause to become effective or maintain the effectiveness of any registration statement, other than a registration statement on Form S-3, that contemplates a distribution of securities on a delayed or continuous basis pursuant to Rule 415 under the Securities Act.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement for the period set forth in subsection (a) above.

(c) Furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; *provided* that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business, to file a general consent to service of process or to subject itself to taxation in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter(s) of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company will use reasonable efforts to amend or supplement such prospectus in order to cause such prospectus not to include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(g) Use its reasonable efforts to furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and (ii) letters addressed to the underwriters, dated as of such date and as of the closing date for such offering, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering.

2.7 Delay of Registration; Furnishing Information.

(a) No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

(b) It shall be a condition precedent to the obligations of the Company to take any action pursuant to Section 2.2, 2.3 or 2.4 that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them and the intended method of disposition of such securities as shall be required to effect the registration of their Registrable Securities.

(c) The Company shall have no obligation with respect to any registration requested pursuant to Section 2.2 or Section 2.4 if the number of shares or the anticipated aggregate offering price of the Registrable Securities to be included in the registration does not equal or exceed the number of shares or the anticipated aggregate offering price required to originally trigger the Company's obligation to initiate such registration as specified in Section 2.2 or Section 2.4, whichever is applicable.

2.8 Indemnification. In the event any Registrable Securities are included in a registration statement under Sections 2.2, 2.3 or 2.4:

(a) To the extent permitted by applicable law, the Company will indemnify and hold harmless each Holder, the partners, members, officers and directors of each Holder, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against

any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state securities law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "***Violation***") by the Company: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement or incorporated reference therein, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law in connection with the offering covered by such registration statement; and the Company will reimburse each such Holder, partner, member, officer, director, underwriter or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; *provided however*, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such Holder, partner, member, officer, director, underwriter or controlling person of such Holder.

(b) To the extent permitted by applicable law, each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualifications or compliance is being effected, indemnify and hold harmless the Company, each of its directors and officers and each person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act, any underwriter and any other Holder selling securities under such registration statement or any of such other Holder's partners, directors or officers or any person who controls such underwriter or Holder, against any losses, claims, damages or liabilities (joint or several) to which the Company or any such director, officer, controlling person, underwriter or other such Holder, or partner, director, officer or controlling person of such other Holder may become subject under the Securities Act, the Exchange Act or other federal or state securities law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any of the following statements, omissions or violations: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement or incorporated reference therein, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act or Exchange Act (collectively, a "***Holder Violation***"), in each case to the extent (and only to the extent) that such Holder Violation occurs in reliance upon and in conformity with written information furnished by such Holder under an instrument duly executed by such Holder and stated to be specifically for use in connection with such registration; and each such Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or other Holder, or partner, officer, director or controlling person of such other Holder or any such underwriter in connection with investigating

or defending any such loss, claim, damage, liability or action if it is judicially determined that there was such a Holder Violation; *provided*, *however,* that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; *provided further*, that in no event shall any indemnity under this Section 2.8 exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; *provided*, *however,* that an indemnified party shall have the right to retain its own counsel, with the fees and expenses thereof to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8 to the extent, and only to the extent, prejudicial to its ability to defend such action, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) If the indemnification provided for in this Section 2.8 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) or Holder Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; *provided*, *that* in no event shall any contribution by a Holder hereunder exceed the net proceeds from the offering received by such Holder.

(e) The obligations of the Company and Holders under this Section 2.8 shall survive completion of any offering of Registrable Securities in a registration statement and, with respect to liability arising from an offering to which this Section 2.8 would apply that is covered by a registration filed before termination of this Agreement, such termination. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation.

2.9 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee of Registrable Securities (for so long as such shares remain Registrable Securities) that (a) is a subsidiary, parent, general partner, limited partner, retired partner, member or retired member, or stockholder of a Holder that is a corporation, partnership or limited liability company, (b) is a Holder's family member or trust for the benefit of an individual Holder, (c) acquires shares of Registrable Securities such that the transferee or assignee holds at least two percent (2%) of the Company's Registrable Securities (as adjusted for stock splits and combinations) as a result of such acquisition, or (d) is an Affiliate of a Holder; *provided, however,* (i) the transferor shall, within 20 days after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned, and (ii) such transferee shall execute a counterpart of this Agreement and thereby become a party to and bound by this Agreement with respect to the transferred Registrable Securities to the same extent as the transferring Holder was prior to such transfer; *provided further*, *however*, no such assignment shall be permitted if such assignment is not made in compliance with the Co-Sale Agreement (as defined in the Purchase Agreement).

2.10 Limitation on Subsequent Registration Rights. After the date of this Agreement, the Company shall not enter into any agreement with any holder or prospective holder of any securities of the Company that would grant such holder rights to demand the registration of shares of the Company's capital stock, or to include such shares in a registration statement in either such case that would reduce the number of shares includable by the Holders.

2.11 Market Stand-Off Agreement. Each Holder hereby agrees that such Holder shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock (or other securities) of the Company held by such Holder (other than those included in the registration) during the 180-day period following the date of the final prospectus relating to the Initial Public Offering provided, that all officers and directors of the Company who beneficially own any shares of Common Stock and holders of at least one percent (1%) of the Company's voting securities are bound by and have entered into similar agreements on terms no more favorable than those applicable to the Holder. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Holders subject to such agreements, based on the number of shares subject to such agreements.

2.12 Agreement to Furnish Information. Each Holder agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the managing underwriters that are consistent with the Holder's obligations under Section 2.11 or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, each Holder shall provide, within ten days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The

obligations described in Section 2.11 and this Section 2.12 shall not apply to a Special Registration Statement. In order to enforce Section 2.11, Section 2.12 and any such other agreement requested by the Company or the managing underwriters, the Company may impose stop-transfer instructions with respect to such shares of Common Stock (or other securities) until the end of such period. Each Holder agrees that any transferee of any shares of Registrable Securities shall be bound by Section 2.11 and this Section 2.12. The underwriters of the Company's stock are intended third party beneficiaries of Section 2.11 and this Section 2.12 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

2.13 Rule 144 Reporting. With a view to making available to the Holders the benefits of certain rules and regulations of the SEC which may at any time permit a Holder to sell securities of the Company to the public without registration, the Company agrees to use its best efforts to:

(a) Make and keep public information available, as those terms are understood and defined in SEC Rule 144 or any similar or analogous rule promulgated under the Securities Act, at all times after the effective date of the first registration filed by the Company under the Securities Act for an offering of its securities to the general public;

(b) File with the SEC, in a timely manner, all reports and other documents required of the Company under the Exchange Act; and

(c) So long as a Holder owns any Registrable Securities, furnish to such Holder forthwith upon request: a written statement by the Company as to its compliance with the reporting requirements of Rule 144 under the Securities Act, and of the Exchange Act (at any time after it has become subject to such reporting requirements) if such compliance is required for such Holder to sell shares of Common Stock in reliance on Rule 144 under the Securities Act; a copy of the most recent annual or quarterly report of the Company filed with the SEC if the Company's making such filing is required for such Holder to sell shares of Common Stock in reliance on Rule 144 under the Securities Act; and such other reports and documents as a Holder may reasonably request in connection with availing itself of any rule or regulation of the SEC allowing it to sell any such securities without registration if the furnishing of any such report or document is necessary to enable such Holder to sell Common Stock in reliance on under Rule 144 under the Securities Act.

2.14 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2.2, Section 2.3, or Section 2.4 hereof shall terminate upon the earlier of: (i) the date five (5) years following a Qualified Public Offering; or (ii) such time as such Holder beneficially owns less than 1% of the Company's outstanding Common Stock (treating all shares of Preferred Stock on an as-if-converted basis), and the Company has completed its Qualified Public Offering and all Registrable Securities of the Company issuable or issued upon conversion of the Preferred Stock held by and issuable to such Holder (and its Affiliates) may be sold pursuant to Rule 144 during any 90 day period. Upon such termination, such shares shall cease to be "Registrable Securities" hereunder for all purposes.

2.15 Amendment of Existing Registration Rights Agreements. No amendment, waiver or modification of any provision of any other agreement relating to the registration of shares of the Company's capital stock in effect as of the Effective Date, including, without limitation,

that certain Registration Rights Agreement, dated as of June 1, 2016, by and among the Company and the holders of the Company's Common Stock party thereto (any such agreement a "***Prior Registration Rights Agreement***"), shall be effective unless such amendment, waiver or modification is approved by the vote or written consent of the holders of 56% of the then outstanding shares of Preferred Stock. In the event of any conflict between any Prior Registration Rights Agreement and this Agreement, the provisions of this Agreement shall control.

SECTION 3. COVENANTS OF THE COMPANY.

3.1 Financial Information and Reporting.

(a) The Company will maintain true books and records of account in which full and correct entries will be made of all its business transactions pursuant to a system of accounting established and administered in accordance with generally accepted accounting principles consistently applied (except as noted therein or as disclosed to the recipients thereof), and will set aside on its books all such proper accruals and reserves as shall be required under generally accepted accounting principles consistently applied.

(b) The Company will furnish each Major Investor, as soon as practicable after the end of each fiscal year of the Company, and in any event within one hundred 120 days thereafter, an audited balance sheet of the Company, as at the end of such fiscal year, and an audited statement of income and a statement of cash flows of the Company, for such year, all prepared in accordance with generally accepted accounting principles consistently applied (except as noted therein or as disclosed to the recipients thereof) and setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail. Such financial statements shall be accompanied by a report and opinion thereon by independent public accountants selected by the Board.

(c) The Company will furnish each Major Investor, as soon as practicable after the end of the first, second and third quarterly accounting periods in each fiscal year of the Company, and in any event within 45 days thereafter, an unaudited balance sheet of the Company as of the end of each such quarterly period, and an unaudited statement of income and a statement of cash flows of the Company for such period and for the current fiscal year to date, prepared in accordance with generally accepted accounting principles consistently applied (except as noted therein or as disclosed to the recipients thereof), with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made.

(d) The Company will furnish each Major Investor: (i) at least 30 days prior to the beginning of each fiscal year an annual budget and operating plan for such fiscal year that has been approved by the holders of 56% of the then outstanding shares of Preferred Stock pursuant to Section 3.20 below (and as soon as available, any subsequent written revisions thereto); and (ii) as soon as practicable after the end of each month, and in any event within 20 days thereafter, a balance sheet of the Company as of the end of each such month, and a statement of income and a statement of cash flows of the Company for such month and for the current fiscal year to date, including a comparison to plan figures for such period, prepared in accordance with generally accepted accounting principles consistently applied (except as noted thereon), with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made.

3.2 Inspection Rights. Each Major Investor shall have the right, exercisable on reasonable prior written notice to the Company, to visit and inspect any of the properties of the Company or any of its subsidiaries, and to discuss the affairs, finances and accounts of the Company or any of its subsidiaries with its officers, and to review such information as is reasonably requested all at such reasonable times during normal business hours and as often as may be reasonably requested; *provided*, *however*, that the Company shall not be obligated under this Section 3.2 to provide the rights hereunder to any Major Investor who is, or is associated or affiliated with, a competitor of the Company or with respect to information which the Company determines in good faith is confidential, attorney-client privileged or that the Company is prohibited by applicable law from disclosing to such Major Investor and should not, therefore, be disclosed (unless, in the case of confidential information, covered by an enforceable confidentiality agreement, in form acceptable to the Company).

3.3 Confidentiality of Records. Each Investor agrees to use the same degree of care as such Investor uses to protect its own confidential information to keep confidential any information furnished to such Investor pursuant to Section 3.1 and 3.2 hereof or pursuant to any Management Rights Letter (as defined in the Purchase Agreement) addressed to such Investor, in each case, that the Company identifies as being confidential or proprietary (so long as such information is not in the public domain) and not to use such information for any purpose other than monitoring its investment in the Company, except that such Investor may disclose such proprietary or confidential information (i) to any existing or prospective Affiliate, partner, subsidiary or parent of such Investor as long as such Affiliate, partner, subsidiary or parent is advised of and agrees or has agreed to be bound by the confidentiality and non-use provisions of this Section 3.3; (ii) at such time as it enters the public domain through no fault of such Investor; (iii) that the Company communicates to it free of any obligation of confidentiality and restriction on use; (iv) that is developed by Investor or its agents independently of and without reference to any confidential information communicated by the Company as shown by contemporaneous records; (v) with regard only to the confidentiality restriction, as required by applicable law or order of a court or tribunal; (vi) to its attorneys, accountants, consultants and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company, provided such persons agree to hold such information confidentially as provided herein and not to use it for any purpose other than providing such services to such Investor; or (vii) to any prospective purchaser of any Registrable Securities from such Holder, if prior to any such disclosure such prospective purchaser agrees in writing to be bound by the provisions of this Section 3.3.

3.4 Reservation of Common Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Preferred Stock, such number of shares of Common Stock as are issuable from time to time upon such conversion.

3.5 Stock Vesting. Unless otherwise approved by the Board, all stock options and other stock equivalents issued after the date of this Agreement to employees, directors, consultants and other service providers shall be subject to vesting as follows: (a) twenty-five percent (25%) of such stock shall vest one year following the date of the grant, and (b) seventy-five percent (75%) of such stock shall vest in equal monthly installments over the next three years thereafter.

3.6 Director and Officer Insurance. The Company will use its commercially reasonable best efforts to maintain in full force and effect director and officer liability insurance for no less than the amount of three million dollars ($3,000,000) in coverage, or such other amount as approved by the Board (including the affirmative vote of one of the representatives elected by the holders of Preferred Stock), with terms and policy limits approved by the Board.

3.7 Observer Rights.

(a) So long as the Company shall not be a company required to file reports with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act, the Company shall allow (1) two representatives designated by Longitude Venture Partners III, L.P. ("***Longitude***"), who are reasonably acceptable to the Company and who shall initially be Sandip Agarwala and Oren Isacoff, so long as Longitude shall hold any shares of Preferred Stock, (2) one representative designated by New Enterprise Associates 15, L.P. ("***NEA***"), who is reasonably acceptable to the Company and who shall initially be Jason Fuller, so long as NEA shall hold any shares of Preferred Stock, (3) one representative designated by Novo, who is reasonably acceptable to the Company and who shall initially be Jennifer Lee, so long as Novo shall hold any shares of Preferred Stock, (4), one representative designated by Sanofi US ("***Sanofi***"), who is reasonably acceptable to the Company and who shall initially be Ruchita Sinha, so long as Sanofi shall hold any shares of Preferred Stock, (5) Dr. Demetrios Braddock ("***Braddock***") so long as he shall own at least 25% of the shares of Common Stock that he owned on April 13, 2017, subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like, and (6) one representative designated by Pivotal bioVenture Partners LLC ("***Pivotal***"), who is reasonably acceptable to the Company and who shall initially be Jim Trenkle, so long as Pivotal shall hold any shares of Preferred Stock, to attend all meetings of the Board as observers, but without any right to make any motion or to vote (the "***Observers***"), and in connection therewith, the Company shall give the Observers copies of all notices, minutes, written consents of the Board to action taken without a meeting and other materials, financial or otherwise, which the Company provides to the Board; *provided*, *however*, that the observation rights (including the right to receive notices, minutes, consents and other materials) provided hereby shall be temporarily suspended, and any one or more Observers shall be excluded from access to any material or meeting or portion thereof, if (i) the Company believes, upon the advice of counsel, that such exclusion is necessary or appropriate to preserve the attorney-client privilege or to protect confidential or proprietary information of the Company or a third party; or (ii) with respect to Braddock, there exists, with respect to any meeting of the Board or any portion thereof or any deliberation by the Board or consent or material being furnished to the Board, an actual or potential conflict of interest between Braddock and the Company.

The rights of observation provided hereby shall not extend to any meeting of any committee of the Board; *provided*, *however*, that the Company will furnish to the Observer copies of minutes of committee meetings and actions taken by each committee by written consent, subject to the foregoing limits.

(b) Before an initial Observer named in this Section or any subsequent designee as an Observer shall attend any meeting or receive any information or materials, such Observer each shall execute and deliver to the Company an agreement requiring such Observer to maintain the confidentiality of information and restricting the use thereof, such agreement to be in the form specified by the Company.

(c) The Holders agree that any action duly taken by the Board shall not be invalidated by virtue of the fact that an Observer was not properly notified of, or was not in attendance at, the meeting at which such action was taken or that the Company may have breached this Section 3.7.

(d) If a Special Mandatory Conversion occurs with respect to any Investor entitled to designate one or more Observers pursuant to this Section 3.7 or with respect to any Affiliate of such Investor, then such Investor's right to designate one or more Observers under this Section 3.7 shall immediately terminate and the observation rights of all Observers designated by such Investor shall immediately terminate.

3.8 Board Matters. Unless otherwise determined by the Board (with the consent of at least a majority of the directors designated by the holders of Preferred Stock), the Board will meet at least quarterly. The Company shall reimburse the nonemployee directors and Observers for all reasonable out-of-pocket travel expenses incurred in connection with attending the meetings of the Board (or committees thereof) or any other activities such as meetings or trade shows which the Company requests such director or Observer to attend. The directors designated by the holders of Preferred Stock shall each be entitled in his or her discretion to be a member of any committee of the Board.

3.9 Proprietary Information and Inventions Agreement. The Company shall require all employees and consultants to execute and deliver a Proprietary Information and Inventions Agreement substantially in a form attached as Exhibit F to the Purchase Agreement (except as otherwise stated in the Schedule of Exceptions for the Initial Closing under the Purchase Agreement) or in such other form as shall be approved by the Company's counsel or the Board.

3.10 CEO Relocation. By January 17, 2020, the Company's Chief Executive Officer shall be located or relocate to within a reasonable daily commuting distance from the Company's corporate headquarters in the greater Boston, Massachusetts area.

3.11 Affiliate Transactions. The Company shall not, after the date hereof, enter into or be a party to any transaction with an Affiliate, any director, officer, consultant or employee of the Company or any Affiliate or "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such Persons, except for (i) transactions contemplated by the Related Agreements (as defined in the Purchase Agreement), or (ii) transactions made in the ordinary course of business and pursuant to reasonable requirements of the Company's business and upon fair and reasonable terms that are approved by the Board (including the affirmative vote of one of the representatives designated by the holders of Preferred Stock).

3.12 Compliance with Laws. The Company shall observe and remain in compliance in all material respects with all applicable laws, including the Employee Retirement Income Security

Act of 1974, as amended, and maintain in full force and effect all approvals necessary to the conduct of its business, and the failure of which to maintain would have a material adverse effect on the Company.

3.13 Maintenance of Insurance. The Company shall maintain insurance, including directors' and officers' liability insurance, with responsible insurance companies against such risks and in such amounts as are customarily maintained by similar businesses in similar industries.

3.14 Maintenance of Property. The Company shall protect and preserve all properties necessary and material to its business, including all intellectual property and tangible and intangible assets; maintain in good working order and condition (ordinary wear and tear excepted) all buildings, equipment and other tangible real and personal property necessary and material to its business; and from time to time make or cause to be made all renewals, replacements and additions to such property necessary for the conduct of its business so that the business carried on in connection therewith may be properly conducted at all times.

3.15 Payment of Taxes. The Company shall pay all material taxes, assessments and other governmental charges that may be levied or assessed upon it or any of its property (including, without limitation, withholding, social security, payroll and similar employment related taxes on the dates such taxes are due); provided, that the Company may contest such taxes, assessments and other governmental charges in good faith so long as adequate reserves are maintained with respect thereto.

3.16 Certain Notifications. The Company shall notify the Investors with respect to (i) all material defaults by the Company and, to the extent known by the Company, by a counterparty under any material agreement or contract to which the Company is a party, (ii) any material litigation to which the Company becomes involved and (iii) other corporate events which, individually or in the aggregate, has had or would be reasonably likely to have a material adverse effect on the Company.

3.17 Real Property Holding Corporation. The Company shall provide prompt notice to the Investors following any "determination date" (as defined in Treasury Regulation Section 1.897-2(c)(1)) on which the Company becomes a United States real property holding corporation. In addition, upon a written request by any Investor, the Company shall provide such Investor with a written statement informing such Investor whether such Investor's interest in the Company constitutes a United States real property interest. The Company's determination shall comply with the requirements of Treasury Regulation Section 1.897-2(h)(1) or any successor regulation, and the Company shall provide timely notice to the Internal Revenue Service, in accordance with and to the extent required by Treasury Regulation Section 1.897-2(h)(2) or any successor regulation, that such statement has been made. The Company's written statement to such Investor shall be delivered to such Investor within 10 days of such Investor's written request therefor. The Company's obligation to furnish such written statement shall continue notwithstanding the fact that a class of the Company's stock may be regularly traded on an established securities market or the fact that there is no preferred stock then outstanding.

3.18 Qualified Small Business Stock. The Company shall use commercially reasonable efforts to cause the shares of Preferred Stock, as well as any shares into which such

shares are converted, within the meaning of Section 1202(f) of the Internal Revenue Code (the "***Code***"), to constitute "qualified small business stock" as defined in Section 1202(c) of the Code; provided, however, that such requirement shall not be applicable if the Board of the Company determines, in its good-faith business judgment, that such qualification is inconsistent with the best interests of the Company. The Company shall submit to its stockholders (including the Investors) and to the Internal Revenue Service any reports that may be required under Section 1202(d)(1)(C) of the Code and the regulations promulgated thereunder. In addition, within twenty (20) business days after any Investor's written request therefor, the Company shall, at its option, either (i) deliver to such Investor a written statement indicating whether (and what portion of) such Investor's interest in the Company constitutes "qualified small business stock" as defined in Section 1202(c) of the Code or (ii) deliver to such Investor such factual information in the Company's possession as is reasonably necessary to enable such Investor to determine whether (and what portion of) such Investor's interest in the Company constitutes "qualified small business stock" as defined in Section 1202(c) of the Code.

3.19 Right to Conduct Activities. The Company hereby acknowledges that Longitude and its Affiliates, NEA and its Affiliates, Novo and its Affiliates, Pivotal and its Affiliates and Sanofi and its Affiliates (collectively, "***Funds***") may invest in entities that operate in markets that may be competitive with the markets in which the Company operates. Neither any Fund nor its partners, directors, officers employees, Affiliates, advisors or affiliated investment funds shall be liable to the Company for any claim arising out of, or based upon, (i) the investment by such Fund or any affiliated investment fund in any entity, or activities of such Affiliates, that may be competitive to the Company or (ii) actions taken by any partner, officer, advisor or other representative of such Fund in his, her or its capacity as such to assist any such competitive company; provided, however, that nothing herein shall relieve any Fund or any other party from breach or violation of Section 3.3 above or any breach or violation by an Observer of the agreement between the Company and such Observer that is provided for in Section 3.7(b).

3.20 Approval of Company Annual Budget. The adoption of any annual Company budget and any amendment or alteration to such budget shall require the approval of the holders of 56% of the then outstanding shares of Preferred Stock.

3.21 Defense Production Act of 1950. To the extent that (i) any pre-existing products or services provided by the Company (a) are re-categorized by the U.S. government as critical technologies within the meaning of the Defense Production Act of 1950, as amended (the "***DPA***"), or (b) would reasonably be considered to constitute the design, fabrication, development, testing, production or manufacture of critical technologies after a re-categorization of selected technologies by the U.S. government, or (ii) after execution of the Purchase Agreement, the Company engages in any activities that would reasonably be considered to constitute the design, fabrication, development, testing, production or manufacture of critical technologies within the meaning of the DPA, the Company shall provide at least 60 days' notice to the Investors in advance of the Milestone Closing and/or any other financing or investment of a type contemplated by the DPA in the Company by the Investors or any other party.

3.22 CFIUS Filing Cooperation. If and only if (i) the Committee on Foreign Investment in the United States ("***CFIUS***") requests or requires that any Investor or the Company file a notice or declaration (either, a "***Filing***") with CFIUS pursuant to the Defense Production Act of 1950, as

amended, including all implementing regulations thereof (the "***DPA***") with respect to such Investor's purchase of shares of Series A-2 Preferred Stock pursuant to the Purchase Agreement (the "***Transactions***") or (ii) either of (a) any Investor or (b) the Company determine a Filing with CFIUS with respect to the Transactions is required by or advisable in order to comply with applicable law, then each of the Company and the applicable Investor(s) (together, the "***CFIUS Parties***") shall (i) cooperate and undertake their reasonable best efforts to promptly make such a Filing and promptly respond to any CFIUS request for information and/or documents with respect to such Filing and/or the Transactions; and (ii) use commercially reasonable efforts to satisfy the CFIUS Condition, including without limitation agreeing to reasonable mitigation terms required by CFIUS to satisfy the CFIUS Condition, provided that agreement to any mitigation terms shall be at the reasonable discretion of the affected party.

3.23 Termination of Covenants. All covenants of the Company contained in Section 3 of this Agreement (other than the provisions of Section 3.3, 3.6, 3.17 and 3.19) shall expire and terminate as to each Investor upon the earlier of (i) the effective date of the registration statement pertaining to a Qualified Public Offering or (ii) upon an "***Acquisition***" as defined in the Charter.

SECTION 4. COVENANT OF THE INVESTORS.

4.1 Commerce Department Compliance. The Company may be required to file reports with the Bureau of Economic Analysis (the "***BEA***") of the U.S. Commerce Department when a U.S. Affiliate of a foreign Investor if such foreign Investor, together with its Affiliates, directly or indirectly controls ten percent (10%) or more of the voting securities of the Company. Such foreign Investor that is a foreign individual or entity or a U.S. subsidiary or Affiliate of a foreign parent covenants to provide information necessary for the Company to comply with BEA filings required under the International Investment and Trade in Services Act.

4.2 Voluntary Conversion. Each Investor hereby covenants and agrees that it shall not exercise, and shall not permit any of its Affiliates to exercise, any right that such Investor or such Affiliate, as the case may be, may have under the Charter voluntarily to convert any shares of Preferred Stock owned or held by such Investor or such Affiliate, as the case may be, into shares of Common Stock at any time during the period commencing on the date of this Agreement and ending on the earliest of (i) the Business Day immediately following the date of the Milestone Closing (as defined in the Purchase Agreement), (ii) September 30, 2021, (iii) the date upon which the Company and the holders of 56% of outstanding Preferred Stock determine that the Milestone (as defined in the Purchase Agreement) will not occur, and (iv) the day immediately following the date on which the Board or the Company's stockholders adopt a resolution to effect (A) a liquidation, dissolution or a winding up of the Company, or (B) a Liquidation Event, Acquisition or Asset Transfer (each as defined in the Charter). The Company shall give notice to the Investors of the adoption of any such resolution within five (5) Business Days after the adoption of such resolution and in any case at least five (5) Business Days before effecting such liquidation, dissolution, winding up or Liquidation Event, Acquisition or Asset Transfer.

SECTION 5. RIGHTS OF FIRST REFUSAL.

5.1 Subsequent Offerings. Subject to applicable securities laws, each Major Investor shall have a right of first refusal to purchase its *pro rata* share of all Equity Securities, as defined

below, that the Company may, from time to time, propose to sell and issue after the date of this Agreement, other than the Equity Securities excluded by Section 5.6 hereof. Each Major Investor's *pro rata* share is equal to the ratio of (a) the number of shares of Common Stock (including all shares of Common Stock issuable or issued upon conversion of Preferred Stock or upon the exercise of outstanding warrants or options) which such Major Investor holds immediately prior to the issuance of such Equity Securities to (b) the total number of outstanding shares of Common Stock (including all shares of Common Stock issued or issuable upon conversion of Preferred Stock or upon the exercise of any outstanding warrants or options) immediately prior to the issuance of the Equity Securities. The term "***Equity Securities***" shall mean (i) any Common Stock or preferred stock that is convertible into shares of Common Stock or the holders of which are entitled to participate with the Common Stock in the distribution of proceeds of a liquidation or sale of the Company, (ii) any security convertible into or exercisable or exchangeable for, with or without consideration, any Common Stock or such preferred stock (including any option to purchase such a convertible security), (iii) any security carrying any warrant or right to subscribe to or purchase any Common Stock or such preferred stock or other security.

5.2 Exercise of Rights. If the Company proposes to issue any Equity Securities, it shall give each Major Investor notice of its intention, describing the Equity Securities, the price and the terms and conditions upon which the Company proposes to issue the same. Each Major Investor shall have 20 days from the giving of such notice to agree to purchase its *pro rata* share of the Equity Securities for the price and upon the terms and conditions specified in the Company's notice by giving notice of such agreement to the Company and stating therein the quantity of Equity Securities to be purchased. Notwithstanding the foregoing, the Company shall not be required to offer or sell such Equity Securities to any Major Investor who would cause the Company to be in violation of applicable federal securities laws by virtue of such offer or sale.

5.3 Issuance of Equity Securities to Other Persons. If not all of the Major Investors elect to purchase their *pro rata* share of the Equity Securities, then the Company shall promptly notify the Major Investors who do so elect and shall offer such Major Investors the right to acquire such unsubscribed shares on a *pro rata* basis. Each Major Investor shall have five days after receipt of such notice to notify the Company of its election to purchase all or a portion of the unsubscribed shares. The Company shall have 90 days thereafter to sell the Equity Securities in respect of which the Major Investor's rights were not exercised, at a price and upon general terms and conditions not materially more favorable to the purchasers thereof than specified in the Company's notice to the Major Investors pursuant to Section 5.2 hereof. If the Company has not sold such Equity Securities within 90 days of the notice provided pursuant to Section 5.2, the Company shall not thereafter issue or sell any Equity Securities, without first offering such securities to the Major Investors in the manner provided above.

5.4 Termination and Waiver of Rights of First Refusal. The rights of first refusal established by this Section 5 shall not apply to, and shall terminate upon the earlier of, (i) the effective date of the registration statement pertaining to the Company's Qualified Public Offering or (ii) an Acquisition. Notwithstanding Section 6.5 hereof, the rights of first refusal established by this Section 5 may be amended, or any provision waived only by a written instrument duly executed by the Company and Major Investors holding a majority of the shares of Common Stock issued or issuable upon conversion of Preferred Stock held by all Major Investors, or as permitted by Section 6.5.

5.5 Assignment of Rights of First Refusal. The rights of first refusal of each Major Investor under this Section 5 may be assigned to the same parties, subject to the same restrictions as any transfer of registration rights pursuant to Section 2.9 but only to persons who are "accredited investors", as defined in Regulation D under the Securities Act and only if that such an assignment is permitted by the Securities Act and other applicable securities laws.

5.6 Excluded Securities. The rights of first refusal established by this Section 5 shall have no application to Exempted Securities (as defined in the Charter) and (i) shares of Common Stock issued in the Initial Public Offering; (ii) any Equity Securities issued by the Company pursuant to Sections 2.1, 2.2 or 2.4 of the Purchase Agreement; (iii) any Equity Securities issued by the Company upon conversion of any Equity Securities defined in Section 5.6(i); or (iv) any Equity Securities issued pursuant to the Special Mandatory Conversion terms in Article IV.D. Section 4(p) of the Charter.

SECTION 6. MISCELLANEOUS.

6.1 Governing Law. This Agreement shall be governed by and construed under the laws of the State of Delaware in all respects as such laws are applied to agreements among Delaware residents entered into and to be performed entirely within Delaware, without reference to conflicts of laws or principles thereof. The parties agree that any action brought by either party under or in relation to this Agreement, including without limitation to interpret or enforce any provision of this Agreement, shall be brought in, and each party agrees to and does hereby submit to the jurisdiction and venue of, any state or federal court located in the State of Delaware.

6.2 Successors and Assigns. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the parties hereto and their respective successors, assigns, heirs, executors, and administrators and shall inure to the benefit of and be enforceable by each person who shall be a holder of Equity Securities from time to time; *provided, however*, that prior to the receipt by the Company of adequate written notice of the transfer of any Equity Securities specifying the full name and address of the transferee, the Company may deem and treat the person listed as the holder of such shares in its records as the absolute owner and holder of such shares for all purposes, including the payment of dividends or any redemption price.

6.3 Entire Agreement. Upon the effectiveness of this Agreement, the Prior Agreement shall be deemed amended and restated to read in its entirety as set forth in this Agreement. This Agreement and the Exhibits hereto, along with the Purchase Agreement and the other documents executed and delivered pursuant thereto constitute the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof and no party shall be liable or bound to any other in any manner by any oral or written representations, warranties, covenants and agreements except as specifically set forth herein and therein. Each party expressly represents and warrants that it is not relying on any oral or written representations, warranties, covenants or agreements outside of this Agreement and the other agreements and instruments referred to in this Section 6.3. The recitals to this Agreement form part of this Agreement.

6.4 Severability. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

6.5 Amendment and Waiver.

(a) Except as otherwise expressly provided, this Agreement may be amended or modified, and the obligations of the Company and the rights of the Holders under this Agreement may be waived, only by a written instrument duly executed by the Company and the holders of 56% of the Registrable Securities then outstanding; provided, however, that any such instrument that amends (i) Section 3.7 and Section 3.19 in a manner adverse to Longitude shall become effective only if duly executed and delivered by Longitude, (ii) Section 3.7 and Section 3.19 in a manner adverse to NEA shall become effective only if duly executed by NEA, (iii) Section 3.7 and Section 3.19 in a manner adverse to Novo, or Section 6.6 in any manner, shall become effective only if duly executed by Novo, (iv) Section 3.7 and Section 3.19 in a manner adverse to Sanofi shall become effective only if duly executed and delivered by Sanofi, (v) Section 3.7 and Section 3.19 in a manner adverse to Pivotal shall become effective only if duly executed and delivered by Pivotal; and (vi) Sections 3.21 and 3.22 and this Section 6.5(vi), shall become effective only if duly executed by Novo and Pivotal; and provided further that any party may waive its rights under any provision hereof on such party's own behalf by an instrument in writing duly executed by such party without any action, instrument or concurrence of any other party. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 5 with respect to a particular transaction will be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction). The Company will give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not execute and deliver an instrument making such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Section 6.5 will be binding on all parties hereto, regardless of whether any such party has agreed or consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, will be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

(b) For the purposes of determining the number of Holders or Investors entitled to vote or exercise any rights hereunder, the Company shall be entitled to rely solely on the list of record holders of its stock as maintained by or on behalf of the Company.

6.6 Purchasers' Liability. The total liability, in the aggregate, of any Purchaser (as defined in the Purchase Agreement) its officers, directors, employees and agents, for any and all

claims, losses, costs or damages, including attorneys' and accountants' fees and expenses and costs of any nature whatsoever or claims or expenses resulting from or in any way related to such Purchaser's breach of this Agreement shall be several and not joint with the other stockholders and shall not exceed the total purchase price paid to the Company by such Purchaser for its Preferred Stock under the Purchase Agreement. Nothing in this Agreement or the Related Agreements (as defined in the Purchase Agreement) shall restrict an Investor's freedom to operate any of its Affiliates (including any such Affiliate that is a potential competitor of the Company).

6.7 Delays or Omissions. It is agreed that no delay or omission to exercise any right, power, or remedy accruing to any party, upon any breach, default or noncompliance by another party under this Agreement shall impair any such right, power, or remedy, nor shall it be construed to be a waiver of any such breach, default or noncompliance, or any acquiescence therein, or of any similar breach, default or noncompliance thereafter occurring. It is further agreed that any waiver, permit, consent, or approval of any kind or character on any party's part of any breach, default or noncompliance under the Agreement or any waiver on such party's part of any provisions or conditions of this Agreement must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement, by law, or otherwise afforded to any party, shall be cumulative and not alternative.

6.8 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five days after having been sent by certified mail, return receipt requested, postage prepaid, or (d) one day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All notices shall be sent to the party to be notified at the address as set forth on the signature pages hereof or **Exhibit A** hereto or at such other address or electronic mail address as such party may designate by ten (10) days' written notice to the other parties hereto.

6.9 Attorneys' Fees. In the event that any suit or action is instituted to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the non-prevailing party all out-of-pocket costs and expenses of enforcing any right of such prevailing party under this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all reasonable out-of-pocket costs and expenses of appeals.

6.10 Titles and Subtitles. The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

6.11 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company shall issue additional shares of its Series A-2 Preferred Stock pursuant to the Purchase Agreement, any purchaser of such shares of Series A-2 Preferred Stock shall become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and shall be deemed an "***Investor***," a "***Holder***" and a party hereunder. Notwithstanding anything to the contrary contained herein, if the Company shall issue Equity Securities in accordance with Section 5.6(ii) of this Agreement, any purchaser of such Equity Securities may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and shall be deemed an "***Investor***," a "***Holder***" and a party hereunder.

6.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any or all parties may execute this Agreement by telephone line facsimile transmission bearing its signature or by electronic transmission of its signature image in Portable Document Format ("***PDF***"), and any such signature sent by facsimile transmission or a PDF signature image, if identified, legible and complete, shall be deemed an original signature and each of the other parties is hereby authorized to rely thereon.

6.13 Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities or persons or persons or entities under common management or control shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

6.14 Pronouns. All pronouns contained herein, and any variations thereof, shall be deemed to refer to the masculine, feminine or neutral, singular or plural, as to the identity of the parties hereto may require.

6.15 Special Mandatory Conversion. In the event that the Preferred Stock held by an Investor is converted into Common Stock pursuant to a Special Mandatory Conversion, such person shall cease to be an Investor under this Agreement and shall cease to be entitled to any of the rights and privileges granted to an Investor pursuant to this Agreement.

[Signature Pages Immediately Follow]

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

COMPANY:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer

Address: 280 Summer Street
5th Floor
Boston, Massachusetts 02210

[**]

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

Pivotal bioVenture Partners Fund I, L.P.

By: Pivotal bioVenture Partners Fund I G.P., L.P.,
its general partner

By: Pivotal bioVenture Partners Fund I U.G.P. Ltd, its general partner

By: /s/ Robert Hopfner
Name: Robert Hopfner
Title: Managing Partner

Notice provisions:

[**]

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

LONGITUDE VENTURE PARTNERS III, L.P.

By: Longitude Capital Partners III, LLC
Its: General Partner

Signatures: /s/ Patrick Enright
Print Name: Patrick Enright
Title: Managing Member

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

NEW ENTERPRISE ASSOCIATES 15, L.P.

By: NEA Partners 15, L.P.
Its: General Partner

By: NEA 15 GP, LLC
Its: General Partner

Signature: /s/ Louis Citron
Print Name: Louis Citron
Title: Chief Legal Officer

NEA VENTURES 2016, LIMITED PARTNERSHIP

Signature: /s/ Louis Citron
Print Name: Louis Citron
Title: Chief Legal Officer

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

NOVO HOLDINGS A/S

Signature:	/s/ Thomas Dyrberg
Print Name:	Thomas Dyrberg, under specific power of attorney
Title:	Managing Partner

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

AVENTIS INC.

Signature: /s/ Chan H. Lee
Print Name: Chan H. Lee
Print Title: Vice President

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

Signature: /s/ Joseph Schlessinger

Print Name: Joseph Schlessinger

The parties hereto have duly executed this **SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** by their respective officers thereunto duly authorized or by their duly acting representatives acting by their respective officers thereunto duly authorized as of the date set forth in the first paragraph hereof.

INVESTORS:

STEVEN JUNGLES TRUST DATED NOV. 12, 2014

Signature: /s/ Steven Jungles
Print Name: Steven Jungles
Title: Trustee

INOZYME PHARMA, INC.

Counterpart Signature Page

By executing and delivering this signature page, the undersigned (the "**Investor**") hereby joins in, becomes a party to and agrees to be bound by the terms and conditions of:

(i) that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Investor Rights Agreement**"), as an "Investor" thereunder;

(ii) that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**ROFR Agreement**"), as an "Investor" thereunder; and

(iii) that certain Amended and Restated Voting Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Voting Agreement**"), as an "Investor" thereunder.

The undersigned hereby authorizes this signature page to be attached to the Investor Rights Agreement, the ROFR Agreement and the Voting Agreement or counterparts thereof.

Investor:

BLACKWELL PARTNERS LLC – SERIES A

By: /s/ Abayomi A. Adigun
Name: Abayomi A. Adigun
Title: Investment Manager
DUMAC, Inc. Authorized Signatory

By: /s/ Jannine M. Lall
Name: Jannine M. Lall
Title: Head of Finance & Controller
DUMAC, Inc. Authorized Signatory

Date: March 22, 2019

Address:

[**]

AGREED TO AND ACCEPTED:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer and President

Date: March 22, 2019

INOZYME PHARMA, INC.

Counterpart Signature Page

By executing and delivering this signature page, the undersigned (the "**Investor**") hereby joins in, becomes a party to and agrees to be bound by the terms and conditions of:

(i) that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Investor Rights Agreement**"), as an "Investor" thereunder;

(ii) that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**ROFR Agreement**"), as an "Investor" thereunder; and

(iii) that certain Amended and Restated Voting Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Voting Agreement**"), as an "Investor" thereunder.

The undersigned hereby authorizes this signature page to be attached to the Investor Rights Agreement, the ROFR Agreement and the Voting Agreement or counterparts thereof.

Investor:

CHI EF II LP

By: Cowen Healthcare Investments II GP LLC,
its General Partner

By: /s/ Michael Benwitt
Name: Michael Benwitt
Title: Authorized Signatory

Date: March 22, 2019

Address:

[**]

AGREED TO AND ACCEPTED:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer and President

Date: March 22, 2019

INOZYME PHARMA, INC.

Counterpart Signature Page

By executing and delivering this signature page, the undersigned (the "**Investor**") hereby joins in, becomes a party to and agrees to be bound by the terms and conditions of:

(i) that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Investor Rights Agreement**"), as an "Investor" thereunder;

(ii) that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**ROFR Agreement**"), as an "Investor" thereunder; and

(iii) that certain Amended and Restated Voting Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Voting Agreement**"), as an "Investor" thereunder.

The undersigned hereby authorizes this signature page to be attached to the Investor Rights Agreement, the ROFR Agreement and the Voting Agreement or counterparts thereof.

Investor:

COWEN HEALTHCARE INVESTMENTS II LP

By: Cowen Healthcare Investments II GP LLC,
its General Partner

By: /s/ Michael Benwitt
Name: Michael Benwitt
Title: Authorized Signatory

Date: March 22, 2019

Address:

[**]

AGREED TO AND ACCEPTED:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer and President

Date: March 22 2019

INOZYME PHARMA, INC.

Counterpart Signature Page

By executing and delivering this signature page, the undersigned (the "**Investor**") hereby joins in, becomes a party to and agrees to be bound by the terms and conditions of:

(i) that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Investor Rights Agreement**"), as an "Investor" thereunder;

(ii) that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**ROFR Agreement**"), as an "Investor" thereunder; and

(iii) that certain Amended and Restated Voting Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Voting Agreement**"), as an "Investor" thereunder.

The undersigned hereby authorizes this signature page to be attached to the Investor Rights Agreement, the ROFR Agreement and the Voting Agreement or counterparts thereof.

Investor:

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Management, LLC
Its: General Partner

By: /s/ James Schneider
Name: James Schneider
Title: Authorized Signatory

Date: March 22, 2019

Address:

[**]

AGREED TO AND ACCEPTED:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer and President

Date: March 22, 2019

INOZYME PHARMA, INC.

Counterpart Signature Page

By executing and delivering this signature page, the undersigned (the "**Investor**") hereby joins in, becomes a party to and agrees to be bound by the terms and conditions of:

(i) that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Investor Rights Agreement**"), as an "Investor" thereunder;

(ii) that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**ROFR Agreement**"), as an "Investor" thereunder; and

(iii) that certain Amended and Restated Voting Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Voting Agreement**"), as an "Investor" thereunder.

The undersigned hereby authorizes this signature page to be attached to the Investor Rights Agreement, the ROFR Agreement and the Voting Agreement or counterparts thereof.

Investor:

ROCK SPRINGS CAPITAL MASTER FUND LP

By: Rock Springs General Partner LLC,
its general partner

By: /s/ Kris Jenner
Name: Kris Jenner
Title: Member

Date: March 22, 2019

Address:

[**]

AGREED TO AND ACCEPTED:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer and President

Date: March 22, 2019

INOZYME PHARMA, INC.

Counterpart Signature Page

By executing and delivering this signature page, the undersigned (the "**Investor**") hereby joins in, becomes a party to and agrees to be bound by the terms and conditions of:

(i) that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Investor Rights Agreement**"), as an "Investor" thereunder;

(ii) that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**ROFR Agreement**"), as an "Investor" thereunder; and

(iii) that certain Amended and Restated Voting Agreement, dated as of November 9, 2018, by and among the Company and the parties named therein, as amended from time to time (the "**Voting Agreement**"), as an "Investor" thereunder.

The undersigned hereby authorizes this signature page to be attached to the Investor Rights Agreement, the ROFR Agreement and the Voting Agreement or counterparts thereof.

Investor:

SOFINNOVA VENTURE PARTNERS X, L.P.

By: Sofinnova Management X, L.L.C.
its General Partner

By: /s/ James Healy
Name:
Title:

Date: March 22, 2019

Address:

[**]

AGREED TO AND ACCEPTED:

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer and President

Date: March 22, 2019

INOZYME PHARMA, INC.

AMENDMENT NO. 1
TO
SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS AMENDMENT NO. 1 TO SECOND AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT (this "***Amendment***"), dated as of March 22, 2019, amends that certain Second Amended and Restated Investor Rights Agreement, dated as of November 9, 2018, by and among Inozyme Pharma, Inc. (the "***Company***") and the Investors identified therein (the "***IRA***"). Capitalized terms used and not defined herein shall have the meanings set forth in the IRA.

WHEREAS, the Company and the Investors desire to amend the Series A-2 Convertible Preferred Stock Purchase Agreement, dated as of November 9, 2018, by and among the Company and the parties named on the signature pages thereto, to provide for the issuance of additional shares of Series A-2 Preferred Stock to one or more purchasers in one or more additional closings;

WHEREAS, the Company and the Investors desire to revise the IRA to reflect the foregoing; and

WHEREAS, Section 6.5 of the IRA provides in part that the IRA may be amended or modified only by a written instrument duly executed by the Company and the holders of 56% of the Registrable Securities then outstanding;

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the undersigned, who constitute the Investors required to amend the IRA, hereby agree as follows:

1. Amendment to Recital C. The parenthetical in Recital C which currently reads "(the "***Purchase Agreement***")" is hereby deleted in its entirety, and the following is inserted in lieu thereof:

"(as the same may be amended and/or restated from time to time, the "***Purchase Agreement***")".

2. Amendment to Section 1.1(i). Section 1.1(i) of the IRA is hereby deleted in its entirety, and the following is inserted in lieu thereof:

"(i) "***Major Investor***" means any Investor who individually or together with such Investor's Affiliates holds at least 3,139,860 shares of Preferred Stock, subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like. Notwithstanding the foregoing, (i) Rock Springs Capital Master Fund LP ("***Rock Springs***") shall be deemed a "Major Investor" for purposes of Section 3.1, Section 3.2 and Section 5 at all times prior to the Milestone Closing (as defined in the Purchase Agreement) so long as Rock Springs, individually or together

with its Affiliates, continues to hold at least 1,748,252 shares of Preferred Stock, subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like, and (ii) Blackwell Partners LLC – Series A ("***Blackwell***") shall be deemed a "Major Investor" for purposes of Section 3.1, Section 3.2 and Section 5 (a) at all times prior to the Milestone Closing so long as Blackwell, individually or together with its Affiliates, continues to hold at least 796,154 shares of Preferred Stock and (b) at all times after the Milestone Closing so long as Blackwell, individually or together with its Affiliates, continues to hold at least 1,592,308 shares of Preferred Stock, in each case subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like."

3. Amendment to Section 1.1.

1.1 Section 1.1 of the IRA is hereby amended to insert the following in a new Section 1.1(q) after Section 1.1(p):

"**(q)** "***Requisite Holders***" means Pivotal bioVenture Partners LLC ("***Pivotal***"), Sofinnova Venture Partners X, L.P. ("***Sofinnova***"), and RA Capital Healthcare Fund, L.P. ("***RA Capital***")."

1.2 Current Sections 1.1(q) through 1.1(v) of the IRA are hereby amended to be renamed Sections 1.1(r) through a new Section 1.1(w).

4. Amendments to Section 2.2(a). The reference to "56% of the Registrable Securities" in Section 2.2(a), is hereby deleted in its entirety, and the following inserted in lieu thereof:

"a majority of the Registrable Securities, including at least one of the Requisite Holders for so long as at least one of the Requisite Holders holds a majority of the shares of Series A-2 Preferred Stock purchased by such Requisite Holder from the Company prior to the Milestone Closing (subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like)".

5. Amendments to Section 2.15 and Section 3.20. The references to "56% of the then outstanding shares of Preferred Stock" in Section 2.15, Section 3.1(d) and Section 3.20 are hereby deleted in their entirety, and the following inserted in lieu thereof:

"a majority of the then outstanding shares of Preferred Stock, including at least one of the Requisite Holders for so long as at least one of the Requisite Holders holds a majority of the shares of Series A-2 Preferred Stock purchased by such Requisite Holder from the Company prior to the Milestone Closing (subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like)".

6. Amendment to Section 2.11. The first sentence of Section 2.11 of the IRA is hereby deleted in its entirety, and the following is inserted in lieu thereof:

"Each Holder hereby agrees that such Holder shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar

transaction with the same economic effect as a sale, any shares of Common Stock (or other securities) of the Company held by such Holder immediately before the effective date of the final prospectus in such offering (other than those included in the registration) during the 180-day period following the date of the final prospectus relating to the Initial Public Offering provided, that all officers and directors of the Company who beneficially own any shares of Common Stock and holders of at least one percent (1%) of the Company's voting securities are bound by and have entered into similar agreements on terms no more favorable than those applicable to the Holder."

7. Amendments to Section 3.1(d). The reference to "56% of the then outstanding shares of Preferred Stock" in Section 3.1(d) is hereby deleted in is entirety, and the following inserted in lieu thereof:

"a majority of the then outstanding shares of Preferred Stock, including at least one of the Requisite Holders for so long as at least one of the Requisite Holders holds a majority of the shares of Series A-2 Preferred Stock purchased by such Requisite Holder from the Company prior to the Milestone Closing (subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like),".

8. Amendments to Section 4.2. The reference to "56% of outstanding Preferred Stock" in Section 4.2 is hereby deleted in its entirety, and the following inserted in lieu thereof:

"a majority of the then outstanding shares of Preferred Stock, including at least one of the Requisite Holders for so long as at least one of the Requisite Holders holds a majority of the shares of Series A-2 Preferred Stock purchased by such Requisite Holder from the Company prior to the Milestone Closing (subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like),".

9. Amendment to Section 3.7(a). The first paragraph of Section 3.7(a) of the IRA is hereby deleted in its entirety, and the following is inserted in lieu thereof:

"**(a)** So long as the Company shall not be a company required to file reports with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act, the Company shall allow (1) two representatives designated by Longitude Venture Partners III, L.P. ("***Longitude***"), who are reasonably acceptable to the Company and who shall initially be Sandip Agarwala and Oren Isacoff, so long as Longitude shall hold any shares of Preferred Stock, (2) one representative designated by New Enterprise Associates 15, L.P. ("***NEA***"), who is reasonably acceptable to the Company and who shall initially be Jason Fuller, so long as NEA shall hold any shares of Preferred Stock, (3) one representative designated by Novo, who is reasonably acceptable to the Company and who shall initially be Jennifer Lee, so long as Novo shall hold any shares of Preferred Stock, (4), one representative designated by Sanofi US ("***Sanofi***"), who is reasonably acceptable to the Company and who shall initially be Ruchita Sinha, so long as Sanofi shall hold any shares of Preferred Stock, (5) Dr. Demetrios Braddock ("***Braddock***") so long as he shall own at least 25% of the shares of Common Stock that he owned on April 13, 2017, subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like, (6) one representative designated by Pivotal, who is

reasonably acceptable to the Company and who shall initially be Jim Trenkle, so long as Pivotal shall hold any shares of Preferred Stock, and (7) one representative designated by RA Capital, who is reasonably acceptable to the Company and who shall initially be Jake Simson, so long as RA Capital shall hold any shares of Preferred Stock, to attend all meetings of the Board as observers, but without any right to make any motion or to vote (the "***Observers***"), and in connection therewith, the Company shall give the Observers copies of all notices, minutes, written consents of the Board to action taken without a meeting and other materials, financial or otherwise, which the Company provides to the Board; *provided*, *however*, that the observation rights (including the right to receive notices, minutes, consents and other materials) provided hereby shall be temporarily suspended, and any one or more Observers shall be excluded from access to any material or meeting or portion thereof, if (i) the Company believes, upon the advice of counsel, that such exclusion is necessary or appropriate to preserve the attorney-client privilege or to protect confidential or proprietary information of the Company or a third party; or (ii) with respect to Braddock, there exists, with respect to any meeting of the Board or any portion thereof or any deliberation by the Board or consent or material being furnished to the Board, an actual or potential conflict of interest between Braddock and the Company."

10. Amendment to Section 3.19. The first sentence of Section 3.19 of the IRA is hereby deleted in its entirety, and the following is inserted in lieu thereof:

"The Company hereby acknowledges that Longitude and its Affiliates, NEA and its Affiliates, Novo and its Affiliates, Pivotal and its Affiliates, Sanofi and its Affiliates, RA Capital and its Affiliates, Sofinnova and its Affiliates, Cowen Healthcare Investments II LP ("***Cowen***") and its Affiliates, and Rock Springs and its Affiliates (collectively, "***Funds***") may invest in entities that operate in markets that may be competitive with the markets in which the Company operates."

11. Amendment to Section 6.5. The first sentence of Section 6.5(a) of the IRA is hereby deleted in its entirety, and the following is inserted in lieu thereof:

"Except as otherwise expressly provided, this Agreement may be amended or modified, and the obligations of the Company and the rights of the Holders under this Agreement may be waived, only by a written instrument duly executed by the Company and the holders of a majority of the Registrable Securities then outstanding, including at least one of the Requisite Holders for so long as at least one of the Requisite Holders holds a majority of the shares of Series A-2 Preferred Stock purchased by such Requisite Holder from the Company prior to the Milestone Closing (subject to appropriate adjustment for any stock splits, stock dividends, combinations, recapitalizations and the like); provided, however, that any such instrument that amends (i) Section 3.7 and Section 3.19 in a manner adverse to Longitude shall become effective only if duly executed and delivered by Longitude, (ii) Section 3.7 and Section 3.19 in a manner adverse to NEA shall become effective only if duly executed by NEA, (iii) Section 3.7 and Section 3.19 in a manner adverse to Novo, or Section 6.6 in any manner, shall become effective only if duly executed by Novo, (iv) Section 3.7 and Section 3.19 in a manner adverse to Sanofi shall become effective only if duly executed and delivered by Sanofi, (v) Section 3.7 and

Section 3.19 in a manner adverse to Pivotal shall become effective only if duly executed and delivered by Pivotal; (vi) Section 3.7 and Section 3.19 in a manner adverse to RA Capital shall become effective only if duly executed by RA Capital; (vii) Section 3.19 in a manner adverse to Sofinnova shall become effective only if duly executed by Sofinnova; (viii) Section 3.19 in a manner adverse to Cowen shall become effective only if duly executed by Cowen, and (ix) Sections 3.21 and 3.22 and this Section 6.5(ix), shall become effective only if duly executed by Novo and Pivotal; and provided further that any party may waive its rights under any provision hereof on such party's own behalf by an instrument in writing duly executed by such party without any action, instrument or concurrence of any other party."

12. Entire Agreement. The IRA, as amended by this Amendment, contains the entire agreement among the parties with respect to the subject matter thereof and amends, restates and supersedes all prior and contemporaneous arrangements or understandings with respect thereto.

13. Effectiveness. Upon the effectiveness of this Amendment, on and after the date hereof, each reference in the IRA to "this Agreement," "hereunder," "hereof," "herein" or words of like import, and each reference in the other documents entered into in connection with the IRA, shall mean and be a reference to the IRA, as amended hereby. All terms in the IRA that are not explicitly amended by this Amendment shall remain in full force and effect and are hereby ratified and confirmed.

14. Governing Law. This Amendment shall be governed by and construed under the laws of the State of Delaware as such laws are applied to agreements among Delaware residents entered into and performed entirely within the State of Delaware, without reference to the conflict of laws provisions thereof. The parties agree that any action brought by either party under or in relation to this Amendment, including without limitation to interpret or enforce any provision of this Amendment, shall be brought in, and each party agrees to and does hereby submit to the jurisdiction and venue of, any state or federal court located in the State of Delaware.

15. Counterparts. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any or all parties may execute this Amendment by telephone line facsimile transmission bearing its signature or by electronic transmission of its signature image in Portable Document Format ("***PDF***"), and any such signature sent by facsimile transmission or a PDF signature image, if identified, legible and complete, shall be deemed an original signature and each of the other parties is hereby authorized to rely thereon.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, this Amendment has been executed by the parties hereto as of the day and year first above written.

INOZYME PHARMA, INC.

By: /s/ Axel Bolte
Name: Axel Bolte
Title: President and Chief Executive Officer

IN WITNESS WHEREOF, this Amendment has been executed by the parties hereto as of the day and year first above written.

INVESTORS:

LONGITUDE VENTURE PARTNERS III, L.P.

By: Longitude Capital Partners III, LLC
Its: General Partner

Signature: /s/ Patrick Enright
Print Name: Patrick Enright
Title: Managing Member

IN WITNESS WHEREOF, this Amendment has been executed by the parties hereto as of the day and year first above written.

NEW ENTERPRISE ASSOCIATES 15, L.P.

By: NEA Partners 15, L.P.
Its: General Partner

By: NEA 15 GP, LLC
Its: General Partner

Signature: /s/ Louis Citron
Print Name: Louis Citron
Title: Chief Legal Officer

NEA VENTURES 2016, LIMITED PARTNERSHIP

Signature: /s/ Louis Citron
Print Name: Louis Citron
Title: Chief Legal Officer

IN WITNESS WHEREOF, this Amendment has been executed by the parties hereto as of the day and year first above written.

NOVO HOLDINGS A/S

Signature:	/s/ Thomas Dyrberg
Print Name:	Thomas Dyrberg, under specific power of attorney
Title:	Managing Partner

IN WITNESS WHEREOF, this Amendment has been executed by the parties hereto as of the day and year first above written.

PIVOTAL BIOVENTURE PARTNERS FUND I, L.P.

By: Pivotal bioVenture Partners Fund I G.P., L.P.,
its general partner

By: Pivotal bioVenture Partners Fund I U.G.P. Ltd,
its general partner

By: /s/ Robert Hopfner
Name: Robert Hopfner
Title: Managing Partner

Exhibit 10.2

INOZYME PHARMA, LLC

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT, dated as of June 1, 2016 (this "Agreement"), by and among Inozyme Pharma, LLC, a Delaware limited liability company (the "Company"), and holders of the Company's Class 1 Stock (the "Class 1 Stock"), listed on **Exhibit A** (together with certain other persons who become parties as provided herein, the "Holders").

W I T N E S S E T H:

WHEREAS, the Company and each Holder who initially is a party to this Agreement are parties to a Restricted Stock Agreement or Subscription Agreement of even date herewith or dated subsequent hereto (each, a "Subscription Agreement");

WHEREAS, the Company and the initial Holder(s) are executing and delivering this Agreement as a material inducement to such Holder(s) to subscribe for shares of Class 1 Stock pursuant to the Subscription Agreement(s); and

WHEREAS, from time to time after the date of this Agreement one or more other Holders who become parties to Subscription Agreements may also become parties to this Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions.

(a) As used in this Agreement, the terms "Agreement," "Class 1 Stock," "Company," "Holders" and "Subscription Agreement" shall have the respective meanings assigned to such terms in the introductory paragraphs of this Agreement.

(b) All the agreements or instruments herein defined shall mean such agreements or instruments as the same may from time to time be supplemented or amended or the terms thereof waived or modified to the extent permitted by, and in accordance with, the terms thereof and of this Agreement.

(c) The following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

"Affiliate" shall mean, with respect to a party hereto (or such party's successors and assigns), any person or entity that directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such person or entity (or such person's or entity's successors and assigns). For purposes of this definition, a person or entity shall be deemed to be "controlled by" another person or entity if the other possesses, directly or indirectly, power either (i) to vote fifty percent (50%) or more of the securities having ordinary voting power

for the election of directors of such person or entity, or (ii) to direct or cause the direction of the management and policies of such person or entity whether by contract or otherwise, *provided*, *however*, that for purposes of clarity, in addition to the foregoing, with respect to any venture capital investor, "Affiliate" shall include any partnership, limited liability company or fund sharing a common management company or similar entity.

"Class 1 Stock" includes the Class 1 Stock of the Company as authorized on the date hereof, and any other securities into which or for which the Class 1 Stock may be converted or exchanged pursuant to a plan of recapitalization, reorganization, merger, sale of assets or otherwise and any stock (other than Class 1 Stock) and other securities of the Company or any other Person which any holder of Class 1 Stock at any time shall be entitled to receive, or shall have received, on the exercise of conversion or exchange rights of the Class 1 Stock or any such other securities, in lieu of or in addition to Class 1 Stock.

"Excluded Registration Statement" means a Registration Statement under the 1933 Act on Form S-3, S-4 or S-8 or similar or successor registration statement forms of the SEC under the 1933 Act.

"Form S-3" means a Registration Statement on Form S-3 under the 1933 Act, as such form is in effect on the date hereof or any registration form under the 1933 Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

"Holder" means any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 2(k) hereof.

"Initiating Holders" shall have the meaning provided in Section 2(a)(1).

"IPO" means the first firm commitment underwritten sale of equity securities for the account of the Company pursuant to a registration statement filed by the Company under the 1933 Act (other than a registration of securities in a transaction to which Rule 145 under the 1933 Act applies or with respect to an employee benefit plan).

"Material Adverse Effect" means a material adverse effect on (1) the business, assets, liabilities, operations, results of operations, intellectual property, management, condition (financial or other) or prospects of the Company; (2) the validity or enforceability of any transaction document or the ability of the Company to perform its obligations hereunder or thereunder or (3) the rights and remedies of the Holders under the transaction documents or applicable law.

"1934 Act" means the Securities Exchange Act of 1934, as amended.

"1933 Act" means the Securities Act of 1933, as amended.

"register", "registered," and "registration" refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the 1933 Act, and the declaration or ordering of effectiveness of such registration statement or document;

"Registrable Securities" means (1) the Class 1 Stock issuable or issued to the Holders pursuant to the Subscription Agreements, (2) any shares of Class 1 Stock issued to a Holder after the date of this Agreement or issued or issuable to a Holder upon conversion or exercise of a Subject Stock Equivalent issued to a Holder after the date of this Agreement and (3) any Class 1 Stock issued as (or issuable upon the conversion or exercise of any Subject Stock Equivalent which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such Class 1 Stock, or any such Subject Stock Equivalent referred to in the immediately preceding clause (1) or (2), excluding in all cases, however, (i) any Registrable Securities sold by a Holder in a transaction in which such Holder's rights under Section 2 are not assigned, (ii) any Registrable Securities sold to or through a broker or dealer or underwriter in a public distribution or a public securities transaction and (iii) Registrable Securities which can be sold under Rule 144(k) under the 1933 Act; provided that the Registrable Securities are then listed on a national securities exchange or on the New York Stock Exchange, Inc., the American Stock Exchange, Inc. or the Nasdaq Stock Market.

"SEC" means the U.S. Securities and Exchange Commission.

"Subject Stock" means all stock of the Company representing membership interests in the Company entitled to share in the residual value of the Company in connection with a dissolution and liquidation of the Company, including, without limitation, Class 1 Stock, Class 2 Stock and Class 3 Stock, and any securities derivates relating thereto, including any Subject Stock Equivalents.

"Subject Stock Equivalent" means any warrant, option, subscription or purchase right with respect to shares of Subject Stock, any security convertible into, exchangeable for, or otherwise entitling the holder thereof to acquire shares of Subject Stock and any warrant, option, subscription or purchase right with respect to any such convertible, exchangeable or other security.

"S-3 Initiating Holders" shall have the meaning provided in Section 2(c).

"Violation" shall have the meaning provided in section 2(i)(1)

2. Registration Rights

(a) Request for Registration.

(1) If the Company shall receive at any time after the date that is one year following the date of the closing of the IPO a request from the Holders of at least 30% of the Registrable Securities that the Company file a registration statement under the 1933 Act, then the Company shall, within ten (10) days after the receipt thereof, give notice of such request to all Holders and shall, subject to the limitations of Section 2(a)(2), use its best efforts to effect as soon as practicable, and in any event within ninety (90) days after the receipt of such request from the Holders initiating a request under this Section 2(a) (the "Initiating Holders"), the registration under the 1933 Act of all Registrable Securities which, within twenty (20) days after the Company gives such notice, the Holders request to be so

registered; *provided*, *however*, that the Company shall not be obligated to take any action to effect any such registration, qualification or compliance pursuant to this Section 2(a)(1):

(A) While another registration statement (other than Form S-3 or an Excluded Registration Statement) of the Company has been filed with the SEC and is not yet effective or on or within one hundred eighty (180) days after the effective date of another registration statement (other than Form S-3 or an Excluded Registration Statement) filed by the Company with the SEC;

(B) While another registration statement (other than Form S-3 or an Excluded Registration Statement) of the Company has been requested or demanded to register shares of Class 1 Stock issued or issuable upon conversion of shares of the Company's Preferred Stock of a class that ranks senior to the Class 1 Stock as to distribution of profits and distribution of assets upon dissolution of the Company or while any such registration statement has been filed with the SEC and is not yet effective or on or within one hundred eighty (180) days after the effective date of any such registration statement (other than on Form S-4 or S-8) filed by the Company with the SEC.

(C) After the Holders have requested two such registrations pursuant to this Section 2(a)(1) and such registrations have been declared or ordered effective by the SEC, so long as the Company shall have complied with its obligations in this Agreement relating to such registrations; *provided however*, that if any Holder is unable to include in such registration any Registrable Securities that such Holder requests be included in any such registration, the Holders shall be entitled to one additional registration for each such registration from which any Registrable Securities are so excluded; or

(D) If the Company shall furnish to the Holders a certificate signed by the Chairman of the Board or the Chief Executive Officer of the Company stating that in the good faith judgment of the Board of Managers of the Company, as evidenced by a duly adopted resolution of the Board of Managers of the Company, it would be seriously detrimental to the Company or its members for a registration statement to be filed at such time, then the Company's obligation to use its best efforts to register, qualify or comply under this Section 2(a)(1) shall be deferred for a period (as specified in such resolution) not to exceed ninety (90) days from the date of receipt of such written request from the Initiating Holders; *provided*, *however*, that the Company may not utilize this right to delay fulfillment of a request more than once in any twelve-month period.

(2) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so inform the Company as a part of their request made pursuant to this Section 2(a) and the Company shall include such information in the written notice referred to in Section 2(a)(1). In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in such underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders) to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company, as provided in Section 2(d)(6)) enter into an underwriting agreement in usual and customary form with the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders and approved by the Company. Notwithstanding any other provision of this Section 2(a), if the underwriter advises the Company and the Holders electing to participate in such registration in writing that marketing

factors require a limitation of the number of shares to be underwritten, then the Company shall promptly so notify all Holders of Registrable Securities which would otherwise be included in such underwritten offering pursuant hereto, and the number of Registrable Securities that may be included in such underwritten offering shall be allocated as follows:

(i) first, among persons who have the right to include shares in such registration statement pursuant to an agreement other than this Agreement, to the extent such other agreement affords such persons priority over the Holders to include their shares in such registration statement, and

(ii) thereafter among the Holders who have elected to participate in such underwritten offering, in such proportion (as nearly as practicable) as the number of Registrable Securities held by each Holder bears to the aggregate amount of Registrable Securities held by all such Holders, until such Holders have included in the underwriting all Registrable Securities that such Holders have requested to be included in such registration, and

(iii) thereafter, among all other persons who have the right to include shares in such registration, in such relative priorities as established by the agreement(s) under which such rights arise.

Without the consent of a majority in interest of the Initiating Holders, except as permitted by clause (i) of the immediately preceding sentence, no securities other than Registrable Securities shall be covered by such registration if the inclusion of such other securities would result in a reduction of the number of Registrable Securities covered by such registration or included in any underwriting or if, in the opinion of the managing underwriter, the inclusion of such other securities would adversely affect the marketing of such offering.

(b) Company Registration. If the Company at any time after the closing of the IPO proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the 1933 Act in connection with the public offering of such securities solely for cash (other than an Excluded Registration Statement), the Company shall, at least ten (10) days prior to the filing of any registration statement under the 1933 Act relating thereto, promptly give each Holder notice of such registration, unless by the terms of any agreement between the Company and any holders of securities to which such registration relates the Holders are not permitted to include any Registrable Securities in such registration. Such notice shall be given by mail and, concurrent with the deposit of such notice in the mail, by email to the Holders who have furnished email addresses to the Company. Upon the written request of a Holder given within ten (10) days after the Company gives such notice to such Holder (which request shall specify the number of Registrable Securities to be included in such registration statement), the Company shall, subject to the provisions of Section 2(g), cause to be registered under the 1933 Act all of the Registrable Securities that such Holder has requested to be registered.

(c) Form S-3 Registration. In case the Company shall receive from the Holders of at least 30% of the Registrable Securities (the "S-3 Initiating Holders") a request that the Company effect a registration on Form S-3 and any related qualification or compliance with

respect to all or a part of the Registrable Securities owned by the S-3 Initiating Holder or S-3 Initiating Holders, the Company will:

(1) promptly give notice of the proposed registration, and any related qualification or compliance, to all other Holders; and

(2) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Initiating Holder's or Initiating Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a request given within ten (10) days after receipt of such notice from the Company; *provided*, *however*, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this Section 2(c):

(1) if Form S-3 is unavailable for such offering by the Holders;

(2) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public of less than $1,000,000, unless the Registrable Securities to be so registered are all the Registrable Securities held by the S-3 Initiating Holders;

(3) if the Company shall furnish to the Holders a certificate signed by the Chairman of the Board or the Chief Executive Officer of the Company stating that in the good faith judgment of the Board of Managers of the Company, as evidenced by a duly adopted resolution of the Board of Managers of the Company, it would be seriously detrimental to the Company and its members for such registration on Form S-3 to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 for a period of not more than ninety (90) days after receipt of the request of the S-3 Initiating Holder or S-3 Initiating Holders under this Section 2(c); *provided*, *however*, that the Company shall not utilize this right more than once in any twelve-month period; or

(4) in any particular jurisdiction in which the Company would be required to qualify to do business, subject itself to taxation measured by its income or revenues if the Company is not otherwise subject to such taxation in such jurisdiction or to execute a general consent to service of process in any such case in effecting such registration, qualification or compliance.

(3) Subject to the foregoing, the Company shall file a registration statement covering the applicable Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the S-3 Initiating Holders. All expenses incurred by the Company in connection with a registration requested pursuant to Section 2(c), including (without limitation) all registration, filing, qualification, printer's and accounting fees and reasonable fees and disbursements of a single counsel for all Holders, shall be borne by the Company. Registrations effected pursuant to this Section 2(c) shall not be counted as demands for registration or registrations effected pursuant to Sections 2(a) or 2(b), respectively.

(d) Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(1) Prepare and file with the SEC a registration statement with respect to such Registrable Securities on the appropriate form and use its best efforts to cause such registration statement to become effective on the earliest practicable date, and keep such registration statement effective for up to 180 days during which the applicable prospectus is available for use by the Holders whose Registrable Securities are included in such registration (or such shorter period of time, if an underwritten offering, as the underwriters need to complete the distribution of the registered offering, or until the Holders whose Registrable Securities are included in a particular registration have disposed of their Registrable Securities in such registration or such securities shall cease to be Registrable Securities by reason of clause (iii) of the definition of the term "Registrable Securities" in the case of a "shelf" registration on Form S-3 or any similar or successor "short-form" registration statement); *provided, however*, that the number of days that a registration statement shall be kept effective under this Section 2(d)(1) shall be increased for each day the effectiveness of such registration statement was suspended or halted, if at all.

(2) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the 1933 Act with respect to the disposition of all securities covered by such registration statement.

(3) Furnish to each Holder a copy of all documents filed with the SEC and all correspondence from or to the staff of the SEC in connection with such registration.

(4) Furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the 1933 Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(5) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or "blue sky" laws of such jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business, to subject itself to taxation based on income, if not otherwise so subject in such jurisdiction, or to file a general consent to service of process in any such state or jurisdiction.

(6) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriters of such offering and arrange for the Company's independent public accountants to furnish such "comfort" and other letters in customary form for underwritten offerings and as otherwise required by such underwriting agreement.

(7) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the 1933 Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing and use its best efforts to correct such misstatement or omission as soon as practicable.

(8) Furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 2, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Section 2, if such securities are being sold through underwriters, or, if such securities are not being sold through underwriters, on the date that the registration statement with respect to such securities becomes effective, opinions, dated such date, of counsel representing the Company in connection with such registration, in form, scope and substance as is customarily given in such a public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities.

(9) Cause all such Registrable Securities registered pursuant hereto to be listed on each securities exchange on which similar securities issued by the Company are then listed.

(10) Provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(11) Refrain from bidding for or purchasing any Class 1 Stock or any right to purchase Class 1 Stock or attempting to induce any Person to purchase any such security or right if such bid, purchase or attempt would in any way limit the right of the Holders to sell Registrable Securities under such registration statement by reason of the limitations set forth in Regulation M under the 1934 Act.

(e) Obligations of the Holders. (1) It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be required in order to comply with any applicable law or regulation in connection with the registration of such Holder's Registrable Securities or any qualification or compliance with respect to such Holder's Registrable Securities and referred to in this Agreement.

(2) The Holders hereby acknowledge that there may occasionally be times when the Company must suspend the use of a prospectus forming a part of any registration statement filed pursuant to this Agreement until such time as an amendment to such registration statement has been filed by the Company and declared effective by the SEC or until the Company has amended or supplemented such prospectus. Each Holder hereby covenants that it will not sell any securities pursuant to any such prospectus during the period commencing at the time at which the Company gives such Holder and any underwriters notice of the suspension of the use of any

such prospectus and ending at the time the Company gives such Holder and any underwriters notice that the Holders may thereafter effect sales pursuant to any such prospectus. Notwithstanding anything herein to the contrary, the Company shall not suspend use of the registration statement by the Holders unless in the good faith determination of the Company such suspension is required by the federal securities laws, including, without limitation, the rules and regulations promulgated thereunder; *provided*, *however*, that (i) except as otherwise provided by clause (ii) below, if such suspension is required by the need for an amendment or supplement to the registration statement or the prospectus forming a part thereof, the Company shall promptly file such required amendments or supplements as shall be necessary for the disposition of the Registrable Securities to recommence and (ii) if the Board of Managers has determined in good faith that offers and sales pursuant to the prospectus forming part of the registration statement should not be made by reason of the presence of material undisclosed circumstances or developments with respect to which the disclosure that would be required in the registration statement would be premature or would have a Material Adverse Effect, the Company may suspend the use of the prospectus and defer the filing of any required amendment or supplement for the minimum period of time necessary to avoid such Material Adverse Effect; *provided*, *further*, that in the case of clause (ii) above, the Company shall not be entitled to exercise its right to block such sales or suspend use of such prospectus more than one time (not to exceed thirty (30) days) in any twelve-month period.

(3) Each Holder agrees that any sale by such Holder of Registrable Securities pursuant to a registration statement covering Registrable Securities shall be sold in a manner described in the plan of distribution set forth therein and, unless a deemed delivery method is available under the 1933 Act (A) if such sale is made through a broker, the Holder shall instruct such broker to deliver the prospectus to the purchaser or purchasers (or the broker or brokers therefor) in connection with such sale, shall supply copies of the prospectus to such broker or brokers and shall instruct such broker or brokers to deliver such prospectus to the purchaser in such sale or such purchaser's broker, (B) if such sale is made in a transaction directly with a purchaser and not through the facilities of any securities exchange or market, the Holder shall deliver, or cause to be delivered, the prospectus to such purchaser; and (C) if such sale is made by any means other than those described in the immediately preceding clauses (A) and (B), the Holder shall otherwise use its best efforts to comply with the prospectus delivery requirements of the 1933 Act applicable to such sale.

(4) Each Holder agrees that it will promptly notify the Company of any material change in the information set forth in the registration statement regarding such Holder or its plan of distribution; each Holder agrees (a) to notify the Company if such Holder enters into any material agreement with a broker or a dealer for the sale of Registrable Securities through a block trade, special offering, exchange distribution or a purchase by a broker or dealer and (b) in connection with such agreement, to provide to the Company in writing the information necessary to prepare any supplemental prospectus pursuant to Rule 424(c) under the 1933 Act which is required with respect to such transaction.

(5) Each Holder shall not take any action with respect to any distribution deemed to be made pursuant to the registration statement covering such Holder's Registrable Securities which action would constitute a violation of Regulation M under the 1934 Act or any other applicable rule, regulation or law.

(6) At the end of the period during which the Company is obligated to keep a registration statement current and effective as provided in this Agreement, the Holders of Registrable Securities included in such registration statement shall discontinue sales of Registrable Securities pursuant to such registration statement upon receipt of notice from the Company of its intention to remove from registration the Registrable Securities covered by such registration statement that remain unsold, and each such Holder shall notify the Company of the number of its Registrable Securities which remain unsold immediately after receipt of such notice from the Company.

(f) Expenses of Registration. All expenses (other than underwriting discounts and commissions payable with respect to Registrable Securities sold in an offering) incurred by the Company in connection with registrations, filings or qualifications pursuant to Sections 2(a), 2(b) and 2(c) including (without limitation) all registration, filing and qualification fees, printers' and accounting fees (but not including any fees and disbursements of any counsel to any Holders) shall be borne by the Company; *provided, however*, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2(a) if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses), unless (a) the withdrawal is based upon material adverse information concerning the Company of which such Holders were unaware at the time of such request or any material misstatement or omission in any registration statement filed by the Company with the SEC in connection with such offering or (b) the Holders of a majority of the Registrable Securities being registered agree to forfeit the right to a demand registration pursuant to Section 2(a), in which event such right shall be forfeited by all Holders). If the Holders are required by this Agreement to pay all or any part of such registration expenses, such expenses shall be borne by the holders of securities (including Registrable Securities) requesting such registration or inclusion therein in proportion to the number of securities (including Registrable Securities) for which registration was requested. If the Company is required to pay such registration expenses of a withdrawn offering pursuant to clause (a) above, then the Holders shall not forfeit their rights pursuant to Section 2(a) to a demand registration.

(g) Underwriting Requirements. In connection with any offering involving an underwriting of shares being issued by the Company, the Company shall not be required under Section 2(b) to include a particular Holder's securities in such underwriting unless such Holder accepts the terms of the underwriting as agreed upon between the Company and the underwriters selected by it and as are consistent with this Agreement; *provided, however*, that a Holder shall not be required to make any representations or warranties other than with respect to itself and its Registrable Securities. If the total amount of securities, including Registrable Securities, requested by holders of the Company's securities to be included in such offering exceeds the amount of securities proposed to be sold by persons or entities other than the Company that the underwriters reasonably believe compatible with the success of the offering, then, except as otherwise agreed by the Company with holders of securities (other than Registrable Securities) to be included in such registration, the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters believe will be compatible with the success of the offering, but in no event shall (i) the Company be required to exclude from such registration shares held by any person who is entitled to include shares in such registration statement pursuant to an agreement other than this Agreement, except to the extent such other

agreement permits the Company to exclude such shares from such registration before excluding or reducing pro rata the Holders' Registrable Securities, (ii) in the IPO the total amount of securities, including Registrable Securities requested by the Holders to be included in the IPO, be reduced unless, subject to the immediately preceding clause (i), all other securities of the Company held by other holders of securities of the Company are first entirely excluded from the IPO; or (iii) any shares being sold by a holder exercising a demand registration right similar to that granted in Section 2(a) be excluded from such offering.

(h) Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2 unless such injunction is sought by Holders of a majority of the Registrable Securities.

(i) Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(1) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, officers, members, investment advisors, Affiliates and directors of each Holder, any underwriter (as defined in the 1933 Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the 1933 Act or the 1934 Act against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the 1933 Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages, liabilities, or expenses (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations of the Company (collectively a "Violation"): (i) any untrue statement or alleged untrue statement of a material fact contained in a registration statement filed pursuant to this Agreement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation of the 1933 Act, the 1934 Act, any state securities law or any rule or regulation promulgated under the 1933 Act, the 1934 Act or any state securities law in connection with the Company's performance of its obligations under this Agreement; and the Company will pay to each such Holder, the partners, officers, members, investment advisors, Affiliates and directors of each such Holder, each such underwriter or controlling person, as incurred, any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, expense, or action; *provided, however*, that the indemnity agreement contained in this Section 2(i)(1) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, expense, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case to a particular such person for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which occurs (i) in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such person, (ii) due to the failure of a Holder to comply in any material respect with the covenants and agreements contained in this Agreement with respect to the sale of Registrable Securities, and (iii) due to an untrue statement or omission in any prospectus that is corrected in any subsequent prospectus, or supplement or amendment thereto, that was delivered to such Holder prior to the pertinent sale or sales by such Holder and not delivered by such Holder to the individual or entity to which it made such sale(s) prior to such sale(s).

(2) To the extent permitted by law, each selling Holder will indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls the Company within the meaning of the 1933 Act or the 1934 Act, any underwriter, any other Holder selling securities in such registration statement, any of such other Holder's partners, officers, or directors, and any person who controls any such other Holder or underwriter within the meaning of the 1933 Act or the 1934 Act, against any losses, claims, damages, liabilities, or expenses (joint or several) to which any of the foregoing persons may become subject, under the 1933 Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation by such Holder, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder and stated by such Holder to be expressly for use in connection with such registration (the "Holder's Information"); and each such Holder will pay, as incurred, any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this Section 2(i)(2), in connection with investigating or defending any such loss, claim, damage, liability, expense, or action if determined by final judgment (not subject to appeal) of a court of competent jurisdiction that there was such a Violation; *provided, however*, that the indemnity agreement contained in this Section 2(i)(2) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the prior consent of such Holder, which consent shall not be unreasonably withheld, nor shall a Holder be liable in any such case to a particular such person for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which (i) occurs due to the failure of the Company to comply with the covenants and agreements contained in this Agreement with respect to the sale of Registrable Securities or (ii) arises from an untrue statement or omission in any prospectus that is based on such Holder's Information and as to which such Holder shall have provided to the Company corrected Holder's Information and the Company shall not have corrected such prospectus prior to the pertinent sale or sales by for which the Violation occurred; *provided further*, that, in no event shall any Holder be liable for indemnity under this Section 2(i)(2) or otherwise in an amount that exceeds the net proceeds from the offering received by such Holder.

(3) Promptly after receipt by an indemnified party under this Section 2(i) of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2(i), deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties. After notice from the indemnifying party to any indemnified party(s) of the indemnifying party's election to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party(s) for any legal expenses subsequently incurred by such indemnified party in connection with the defense thereof; *provided, however*, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would, in the opinion of counsel to the indemnified party, be inappropriate due to actual or potential differing interests between such indemnified party

and any other party represented by such counsel in such proceeding; *provided, further*, that the indemnifying party shall not be obligated to assume the expenses of more than one counsel to represent all indemnified parties. If any indemnified party is entitled to such separate counsel, such counsel shall be required to cooperate with other counsel representing the indemnifying parties in such action if any indemnifying party is required to pay or reimburse the costs of such separate counsel. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2(i), but the failure so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2(i).

If the indemnification provided for in this Section 2(i) is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages, liabilities, or expenses referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage, liability, or expenses in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) that resulted in such loss, claim, damage liability, or expense, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; *provided, however*, that in no event shall any contribution by a Holder hereunder exceed the proceeds from the offering received by such Holder.

(4) The obligations of the Company and Holders under this Section 2(i) shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 2, and otherwise. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation. The rights to indemnification and contribution in this Section 2(i) shall be in addition to and not in lieu of any other rights arising under applicable law.

(j) Rule 144; Reports Under Securities Exchange Act of 1934. With a view to making available to the Holders the benefits of Rule 144 promulgated under the 1933 Act and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, after the effective date of the first registration statement filed by the Company for the offering of its securities to the general public, the Company agrees to:

(1) make and keep public information available, as those terms are understood and defined in Rule 144, at all times after ninety (90) days after such effective date;

(2) take such action, including the voluntary registration of its Class 1 Stock under Section 12 of the 1934 Act, as is necessary to enable the Holders to utilize Form S-3 for the sale of their Registrable Securities, such action to be taken as soon as practicable after the registration statement filed by the Company for its IPO is declared effective, subject to the rules and regulations applying to the use of a Form S-3;

(3) file with the SEC in a timely manner all reports and other documents required of the Company under the 1933 Act and the 1934 Act; and

(4) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144 under the 1933 Act (at any time after ninety (90) days following the effective date of the first registration statement filed by the Company), the 1933 Act and the 1934 Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration or pursuant to such form.

(k) Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee who acquires all or any part of a Holder's Registrable Securities (including through holding any Subject Stock Equivalents); *provided* the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; and *provided*, *further*, that such assignment shall be effective only if immediately following such transfer the further public disposition of such securities by the transferee or assignee is restricted under the 1933 Act.

(l) No Limitation on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall have the right, without any consent or approval of, or notice to, the Holders, to enter into any agreement with any holder or prospective holder of any securities of the Company (i) which would allow such holder or prospective holder to include such securities in any registration filed under Sections 2(a), 2(b) or 2(c) hereof, or (ii) which would restrict the right of the Holders to exercise their rights under Section 2(b) with respect to any registration that the Company effects for any such holder in order to afford similar rights to other holders or prospective holders having priority over the rights of the Holders hereunder.

(m) Mergers, Etc. The Company shall not, directly or indirectly, enter into any merger, consolidation or reorganization in which the Company shall not be the surviving entity unless the proposed surviving entity shall, prior to such merger, consolidation or reorganization, agree in writing to assume the obligations of the Company under this Section 2, and for that purpose references hereunder to Registrable Securities shall be deemed to be references to the securities which the Holders would be entitled to receive in exchange for Registrable Securities under the terms of any such merger, consolidation or reorganization or to receive upon conversion of securities the Holders would be entitled to receive in exchange for shares of Class 1 Stock under

the terms of any such merger, consolidation or reorganization; *provided*, *however*, that the provisions of this Section 2(m) shall not apply in the event of any merger, consolidation, or reorganization in which the Company is not the surviving entity if all members are entitled to receive in exchange for their Class 1 Stock and Registrable Securities consideration consisting solely of (i) cash, (ii) securities of the acquiring entity which may be immediately sold to the public without further registration under the 1933 Act, and/or (iii) securities of the acquiring entity which the acquiring entity has agreed to register within ninety (90) days after completion of the transaction for resale to the public pursuant to the 1933 Act on terms comparable to this Section 2.

3. Miscellaneous Provisions.

(a) All Shares Held by Holders. The terms and conditions of this Agreement govern all shares of Class 1 Stock, and shares of Class 1 Stock issuable upon conversion or exercise of any Subject Stock Equivalent, held by any Holder at the time it becomes a party to this Agreement and all such shares of Class 1 Stock acquired, or issuable in respect of Subject Stock Equivalents acquired, by such Holder subsequent to the date such Holder becomes a party to this Agreement and before the Company's IPO, except to the extent the rights of the holder of such shares to registration under the 1933 Act are expressly governed by a separate agreement. A person who acquires beneficial ownership of Registrable Securities from a Holder and who becomes a party to this Agreement in accordance with Section 2(k) shall thereby become a Holder for purposes of this Agreement.

(b) Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted transferees and permitted assigns of the parties.

(c) Governing Law. This Agreement shall be governed by and construed under the internal laws of the State of New York as applied to agreements among residents of the State of New York entered into and to be performed entirely within the State of New York, without reference to principles of conflict of laws or choice of laws.

(d) Counterparts; Effectiveness. This Agreement may be executed in counterparts and by the parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement shall become effective when duly executed and delivered by the Company and any Holder. Thereafter, any other Holder may become a participant by executing and delivering to the Company a counterpart of this Agreement.

(e) Headings. The headings and captions used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement. All references in this Agreement to sections, paragraphs, exhibits and schedules shall, unless otherwise provided, refer to sections and paragraphs hereof and exhibits and schedules attached hereto, all of which are incorporated herein by this reference.

(f) Stock Splits, etc. All share numbers used in this Agreement are subject to adjustment in the case of any stock split, reverse stock split, combination or similar events.

(g) Notices and Requests. Unless otherwise specifically provided in this Agreement, any notice or request required or permitted under this Agreement shall be given in writing and shall be deemed effectively given on the earliest of (i) when received, (ii) upon personal delivery to the party to be notified, (iii) upon delivery via facsimile so long as confirmation of receipt is received from the receiving facsimile machine, (iv) one day after being deposited with an overnight courier service, (v) three days after deposit with the United States Postal Service, by certified mail, postage prepaid and addressed to the party to be notified at the address set forth on its signature page to this Agreement, or (vi) if delivered by e-mail message to the address set forth on such party's signature page to this Agreement, at the time at which confirmation of receipt is generated by the recipient opening the e-mail communication and creating a record of receipt of the transmission, or at such other address as such party may designate by ten (10) days advance notice to all other parties.

(h) Amendments and Waivers. (1) Any term of this Agreement may be amended, the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively) and any persons may be added as parties hereto, only by an instrument in writing signed by (i) the Company and (ii) Holders who hold a majority in interest of the Registrable Securities held by all Holders. Notwithstanding the foregoing, the Company and the Holders agree that this Agreement shall be automatically amended without further action by the Company or any Holders to add as additional parties (x) from time to time any person who purchases shares of Class 1 Stock from the Company after the date the initial Holders become parties hereto and who executes and delivers to the Company a counterpart of this Agreement, in which case the Company may amend **Exhibit A** from time to time to include such purchasers and (y) from time to time any transferee of registration rights as contemplated by Section 2(k) so long as such transferee agrees in writing with the Company to be bound by the terms of this Agreement as a Holder. Any such amendments or waivers will be binding on all parties hereto.

(2) (A) Notwithstanding anything otherwise to the contrary contained in this Agreement, the Company may amend or modify any term or provision in this Agreement from time to time after the Closing in connection with the issuance of any Subject Stock or Subject Stock Equivalents in a financing transaction the principal purpose of which is to raise capital for the Company if (1) the price per share of Subject Stock issued in such transaction or the price per share of Subject Stock at which the Subject Stock is deemed issued in such transaction is equal to or greater than the Conversion Price in effect on the date of, and immediately prior to, such issuance and (2) such amendment or modification is approved by (x) a written instrument signed by Holders of outstanding shares of Class 1 Stock that at the time constitute Registrable Securities who would, in a vote of such holders taken by the Company, be entitled to cast a majority of the votes entitled to be cast by all the Holders with respect to their outstanding shares of Class 1 Stock that at the time are Registrable Securities, and (y) the Board of Managers.

(B) The issuance by the Company of Subject Stock Equivalents in a financing transaction the principal purpose of which is to raise capital shall be deemed the issuance at the time of such issuance of Subject Stock Equivalents of the Subject Stock issuable upon the exercise,

conversion or exchange of such Subject Stock Equivalents. The price per share at which the shares of Subject Stock are so deemed to have been issued shall be determined by dividing:

(i) the total amount, if any, received or receivable by the Company as consideration for the issuance of such Subject Stock Equivalents, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto and determined without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Company upon the exercise, conversion or exchange of such Subject Stock Equivalents, by

(ii) the maximum number of shares of Subject Stock as set forth in the instruments relating thereto (determined without regard to any provisions contained therein for a subsequent adjustment of such number) issuable upon the exercise, conversion or exchange of such Subject Stock Equivalents.

(i) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision(s) shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision(s) were so excluded and shall be enforceable in accordance with its terms to the maximum extent possible.

(j) Entire Agreement. This Agreement, together with all exhibits and schedules hereto, constitutes the entire understanding and agreement of the parties with respect to the subject matter hereof and supersedes all prior negotiations, correspondence, agreements, understandings, duties or obligations among the parties with respect to the subject matter hereof.

(k) Further Assurances. From and after the date of this Agreement, upon the request of a party, the other parties shall execute and deliver such instruments, documents or other writings as may be reasonably necessary or desirable to confirm and carry out and to effectuate fully the intent and purposes of this Agreement.

[signature page follows]

IN WITNESS WHEREOF, the parties have duly executed this Agreement or caused this Agreement to be duly executed by their respective officers or other representatives thereunto duly authorized as of the day and year first set forth above.

INOZYME PHARMA, LLC

By: /s/ Axel Bolte
Axel Bolte
Chief Executive Officer
and President

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: June 22, 2016

Number of Shares:

1,500,000 Class 1 Stock

/s/ Axel Bolte
Axel Bolte

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: June 22, 2016

Number of Shares:

3,000,000 Class l Stock

/s/ Demetrios Braddock
Demetrios Braddock

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: June 22, 2016

CHAUTAUQUA CORPORATE SERVICES, LLC

Number of Shares:

500,000

By: /s/ Brian W. Pusch
Brian W. Pusch
Managing Member

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: June 22, 2016

Number of Shares:

500,000 Class 1 Stock

/s/ Enrique De LaCruz
Enrique De LaCruz

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: June 22, 2016

Number of Shares:

2,500,000 Class 1 Stock

/s/ Joseph Schlessinger
Joseph Schlessinger

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: June 29, 2016

Number of Shares:

16,667

/s/ Steven Jungles
Steven Jungles
Trust Dated Nov. 12, 2014

Address:

[**]

Email: [**]

OMNIBUS SIGNATURE PAGE FOR
REGISTRATION RIGHTS AGREEMENT

IN WITNESS WHEREOF, the undersigned has hereby duly executed the Registration Rights Agreement or caused the Registration Rights Agreement to be hereby duly executed by one of its officers or other representatives thereunto duly authorized, as of the date set forth below.

Date: January 6, 2017

YALE UNIVERSITY

Number of Shares:

1,000,000

By: /s/ Jon Soderstrom

Name: Jon Soderstrom
Title: Managing Director
Office Cooperative Research

Address:

[**]

Email: [**]

Exhibit 10.3

AMENDED AND RESTATED

2017 EQUITY INCENTIVE PLAN

OF

INOZYME PHARMA, INC.

TABLE OF CONTENTS

AMENDED AND RESTATED

2017 EQUITY INCENTIVE PLAN

OF

INOZYME PHARMA, INC.

1. Purpose

The purpose of this Amended and Restated 2017 Equity Incentive Plan (the "**Plan**") of Inozyme Pharma, 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 and 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 actions and decisions by the Board with respect to the Plan and any Awards shall be made in the Board's discretion and shall be final and binding on all Participants and any other 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 or the officers referred to in Section 3(c) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

(c) Delegation to Officers. Subject to any requirements of applicable law (including as applicable Sections 152 and 157(c) of the General Corporation Law of the State of Delaware), the Board may delegate to one or more officers of the Company the power to grant Awards (subject to any limitations under the Plan) to employees or officers of the Company and to exercise such other powers under the Plan as the Board may determine, provided that the Board shall fix the terms of Awards to be granted by such officers, the maximum number of shares subject to Awards that the officers may grant, and the time period in which such Awards may be granted; and provided further, that no officer shall be authorized to grant Awards to any "executive officer" of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")) or to any "officer" of the Company (as defined by Rule 16a-1(f) under the Exchange Act).

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 5,018,000 shares of common stock, $0.0001 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 subject to 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 subject to 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 Inozyme Pharma., Inc., any of Inozyme Pharma.'s present and 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 non-statutory stock option (a "**Nonstatutory Stock Option)**." The Company shall have no liability to a Participant, or any other person, 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 Grant Date Fair Market Value (as defined below) of the Common Stock on the date the Option is granted; provided that if the Board approves the grant of an Option with an exercise price to be determined on a future date, the exercise price shall not be less than 100% of the Grant Date Fair Market Value on such future date. The "**Grant Date 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 is listed 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 is not listed 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 Grant Date 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 discretion, use weighted averages either on a daily basis or such longer period as complies with Code Section 409A.

The Board has discretion to determine the Grant Date Fair Market Value for purposes of the Plan, and all Awards are conditioned on the applicable Participant's 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 the 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 Exchange Act, except as may otherwise be provided in the applicable Option agreement or approved by the Board, in its 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 discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their fair market value (valued in the manner determined by (or in a manner approved by) the Board), *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 discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would receive (i) the number of shares underlying the portion of the Option being exercised, less (ii) such number of shares as is equal to (A) the aggregate exercise price for the portion of the Option being exercised divided by (B) the fair market value of the Common Stock (valued in the manner determined by (or in a manner approved by) the Board) on the date of exercise;

(5) to the extent permitted by applicable law and provided for in the applicable Option agreement or approved by the Board, in its discretion, by payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

(g) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided under Section 9): (1) amend any outstanding Option to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Option, (2) cancel any outstanding Option or option granted outside this Plan and grant in substitution therefor new Awards under this Plan (other than Awards granted pursuant to Section 4(b)) 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 Option or other option, (3) cancel in exchange for a cash payment any outstanding Option with an exercise price per share above the then-current fair market value of the Common Stock (valued in the manner determined by (or in the manner approved by) the Board), or (4) take any other action under this Plan that constitutes a "repricing" within the meaning of the applicable rules of any stock exchange or public trading market (a "**Stock Exchange**") on which the Common Stock is listed or traded.

6. Stock Appreciation Rights

(a) General. The Board may grant Awards consisting of stock appreciation rights ("**SARs**") entitling the Participant, 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 (valued in the manner determined by (or in a manner approved by) the Board) 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 Grant Date Fair Market Value of a share of Common Stock on the date the SAR is granted; *provided*, that if the Board approves the grant of an SAR effective as of a future date, the measurement price shall not be less than 100% of the Grant Date Fair Market Value on such future date.

(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.

(e) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided under Section 9): (1) amend any outstanding SAR to provide a measurement price per share that is lower than the then-current measurement price per share of such outstanding SAR, (2) cancel any outstanding SAR or any stock appreciation right granted outside this Plan and grant in substitution therefor new Awards under this Plan (other than Awards granted pursuant to Section 4(b)) covering the same or a

different number of shares of Common Stock and having an exercise or measurement price per share lower than the then-current measurement price per share of the cancelled SAR or other stock appreciation right, (3) cancel in exchange for a cash payment any outstanding SAR with a measurement price per share above the then-current fair market value of the Common Stock (valued in the manner determined by (or in the manner approved by) the Board), or (4) take any other action under this Plan that constitutes a "repricing" within the meaning of the applicable rules of any Stock Exchange.

7. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling Participants 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 Participant 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 Participant 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 the number of shares of Common Stock specified in the Award agreement or (if so provided in the applicable Award agreement or otherwise determined by the Board) an amount of cash equal to the fair market value (valued in the manner determined by (or in a manner approved by) the Board) of such number of shares of Common Stock or a combination thereof. 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 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. The Board may grant 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 ("**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 Award of Restricted Stock and (v) the share and per-share-related provisions and the purchase price, if any, of each outstanding Award of Restricted Stock Units and 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 and/or unvested 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) 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), 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, or provide for forfeiture of such Restricted Stock if issued at no cost. 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 or disability 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 elect 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 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 (valued in the manner determined by (or in a manner approved by) the Company); *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), *except that*, to the extent that the Company is able to retain shares of Common Stock having a fair market value (valued in the manner determined by (or in a manner approved by) the Company) that exceeds the statutory minimum applicable withholding tax without financial accounting implications or the Company is withholding in a jurisdiction that does not have a statutory minimum withholding tax, the Company may retain such number of shares of Common Stock (up to the number of shares having a fair market value (valued in the manner determined by (or in a manner approved by) the Company) equal to the maximum individual statutory rate of tax) as the Company shall determine in its discretion to satisfy the tax liability associated with any Award. Shares used to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award. Except as otherwise provided in Sections 5(g) and 6(e) with respect to repricings and Section 11(d) with respect to actions requiring stockholder approval, 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.

(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 (i) 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; and (ii) no amendment that would require stockholder approval under the applicable rules of any Stock Exchange may be made effective unless and until the Company's stockholders approve such amendment. 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. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan unless the Award provides that (1) it will terminate or be forfeited if stockholder approval of such amendment is not obtained within no more than 12 months from the date of the Award and (2) it may not be exercised or settled (or otherwise result in the issuance of Common Stock) prior to such stockholder approval.

(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. 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.

* * * *

INOZYME PHARMA, INC.
AMENDED AND RESTATED
2017 EQUITY 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 Section 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, shall 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.

* * * *

AMENDMENT NO. 1 TO THE
AMENDED AND RESTATED 2017 EQUITY INCENTIVE PLAN
OF
INOZYME PHARMA, INC.

The Amended and Restated 2017 Equity Incentive Plan (the "**Plan**") of Inozyme Pharma, Inc. (the "**Company**"), pursuant to Section 11(d) thereof, is hereby amended as follows:

The first sentence of Section 4(a) of the Plan be and hereby is deleted in its entirety and the following is inserted in lieu thereof:

"Subject to adjustment under Section 9, Awards may be made under the Plan for up to 6,018,000 shares of common stock, $0.0001 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))."

Except as set forth above, the remainder of the Plan remains in full force and effect.

Adopted by the Board of Directors:
December 14, 2017

Adopted by the Stockholders:
January 8, 2018

AMENDMENT NO. 2 TO THE
AMENDED AND RESTATED 2017 EQUITY INCENTIVE PLAN
OF
INOZYME PHARMA, INC.

The Amended and Restated 2017 Equity Incentive Plan (the "**Plan**") of Inozyme Pharma, Inc. (the "**Company**"), as amended by Amendment No. 1 thereto, pursuant to Section 11(d) thereof, is hereby amended as follows:

The first sentence of Section 4(a) of the Plan be and hereby is deleted in its entirety and the following is inserted in lieu thereof:

"Subject to adjustment under Section 9, Awards may be made under the Plan for up to 13,905,000 shares of common stock, $0.0001 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))."

Except as set forth above, the remainder of the Plan remains in full force and effect.

Adopted by the Board of Directors:
November 8, 2018

Adopted by the Stockholders:
November 8, 2018

AMENDMENT NO. 3 TO THE
AMENDED AND RESTATED 2017 EQUITY INCENTIVE PLAN
OF
INOZYME PHARMA, INC.

The Amended and Restated 2017 Equity Incentive Plan (the "**Plan**") of Inozyme Pharma, Inc. (the "**Company**"), as amended by Amendment No. 1 and Amendment No. 2 thereto, pursuant to Section 11(d) thereof, is hereby amended as follows:

The first sentence of Section 4(a) of the Plan be and hereby is deleted in its entirety and the following is inserted in lieu thereof:

"Subject to adjustment under Section 9, Awards may be made under the Plan for up to 20,405,000 shares of common stock, $0.0001 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))."

Except as set forth above, the remainder of the Plan remains in full force and effect.

Adopted by the Board of Directors:
March 22, 2019

Adopted by the Stockholders:
March 22, 2019

Exhibit 10.4

INOZYME PHARMA, INC.

STOCK OPTION AGREEMENT
GRANTED UNDER AMENDED AND RESTATED 2017 EQUITY INCENTIVE PLAN

This Stock Option Agreement (this "**Agreement**") is made between Inozyme Pharma, Inc., a Delaware corporation (the "**Company**"), and the Participant pursuant to the Amended and Restated 2017 Equity Incentive Plan (the "**Plan**").

NOTICE OF GRANT

I. Participant Information

Participant:	
Participant Address:	

II. Grant Information

Grant Date:	
Number of Shares:	
Exercise Price Per Share:	
Vesting Commencement Date:	
Type of Option:	[Incentive Stock Option][Nonstatutory Stock Option]

III. Vesting Table

Vesting Date	Shares that Vest(1)

(1) The number of shares is subject to adjustment for any changes in the Company's capitalization as set forth in Section 9 of the Plan.

IV. Final Exercise Date

5:00 pm Eastern time on Date:	[Date is ten years minus one day from Grant Date]

This Agreement includes this Notice of Grant and the following Exhibits, which are expressly incorporated by reference in their entirety herein:

Exhibit A – General Terms and Conditions
Exhibit B – Notice of Stock Option Exercise
Exhibit C – Inozyme Pharma, Inc. Amended and Restated 2017 Equity Incentive Plan

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

INOZYME PHARMA, INC.	PARTICIPANT	SPOUSAL CONSENT[1]
Name: Title:	Name:	Name:

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

GENERAL TERMS AND CONDITIONS

For valuable consideration, receipt of which is acknowledged, the parties hereto agree as follows:

1. Grant of Option. This Agreement evidences the grant by the Company, on the grant date (the "**Grant Date**") set forth in the Notice of Grant that forms part of this Agreement (the "**Notice of Grant**"), to the Participant of an option to purchase, in whole or in part, on the terms provided herein and in the Company's Amended and Restated 2017 Equity Incentive Plan (the "**Plan**"), the number of shares set forth in the Notice of Grant (the "**Shares**") of common stock, $0.0001 par value per share, of the Company ("**Common Stock**") at the exercise price per Share set forth in the Notice of Grant (the "**Exercise Price**"). Unless earlier terminated, this option shall expire at the time and on the date set forth in the Notice of Grant (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**") solely to the extent set forth in the Notice of Grant. To the extent not designated as an incentive stock option, or to the extent that the option does not qualify as an incentive stock option, the option shall be a nonstatutory stock option. 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**") in accordance with the Vesting Table set forth in the Notice of Grant.

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 B, 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.

(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 parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code 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 service 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 service 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. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his or her service relationship by the Company for Cause, and the effective date of such 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 service relationship shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate immediately upon the effective date of such termination). If the Participant is party to an employment, consulting or severance agreement with the Company or subject to a severance plan maintained by the Company, in either case, that contains a definition of "cause" for termination of service, "Cause" shall have the meaning ascribed to such term in such agreement or plan. 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 service relationship shall be considered to have been terminated for "Cause" if the Company determines, within 30 days after the Participant's termination of service, 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) 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; Additional Agreements.

The Participant agrees, in connection with the initial underwritten public offering of the Common Stock pursuant to a registration statement under the Securities Act, (i) not to (a) offer, pledge, announce the intention to sell, 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 of Common Stock or any other securities of the Company or (b) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock or other securities of the Company, whether any transaction described in clause (a) or (b) is to be settled by delivery of securities, in cash or otherwise, during the period beginning on the date of the filing of such registration statement with the Securities and Exchange Commission and ending 180 days after the date of the final prospectus relating to the offering (plus up to an additional 34 days to the extent requested by the managing underwriters for such offering in order to address NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4) or any similar successor provision), and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering. The Company may impose stop-transfer instructions with respect to the shares of Common Stock or other securities subject to the foregoing restriction until the end of the "lock-up" period.

As a condition precedent to the Participant's right to own, to hold or to receive Shares upon exercise of this option, the Company may require the Participant to execute and deliver such stockholder, voting, co-sale, right of first offer or refusal, investor rights or similar agreements as the Company may specify (collectively, "**Stockholder Agreements**"), and by exercising this option, the Participant agrees to execute and deliver all such agreements promptly after the Company requests. After the Company issues any Shares upon exercise of this option, the Participant will from time to time, promptly following a request from the Company, execute and deliver such other or additional Stockholder Agreements as shall have been approved by the Board and specified by the Company.

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 this option satisfies the requirements to be treated as an incentive stock option under the Code and 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 attached hereto as Exhibit C.

[Remainder of Page Intentionally Left Blank]

EXHIBIT B

NOTICE OF STOCK OPTION EXERCISE

[DATE][2]

Inozyme Pharma, Inc.
[Address]

Attention: Treasurer

Dear Sir or Madam:

I am the holder of [ ][3] Stock Option granted to me under the Inozyme Pharma, Inc. (the "**Company**") Amended and Restated 2017 Equity Incentive Plan on [ ][4] for the purchase of [ ][5] shares of Common Stock of the Company at a purchase price of $[ ][6] per share.

I hereby exercise my option to purchase [ ][7] shares of Common Stock (the "**Shares**"), for which I have enclosed [ ][8] in the amount of [ ][9]. Please register my stock certificate as follows:

Name(s): _____[10]

_____

Address: _____

_____

I represent, warrant and covenant as follows:

---

2 Enter date of exercise.
3 Enter either "an Incentive" or "a Nonstatutory" or both.
4 Enter the date of grant.
5 Enter the total number of shares of Common Stock for which the option was granted.
6 Enter the option exercise price per share of Common Stock.
7 Enter the number of shares of Common Stock to be purchased upon exercise of all or part of the option.
8 Enter "cash", "personal check" or if permitted by the option or Plan, "stock certificates No. XXXX and XXXX".
9 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.
10 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 six months 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.

6. Prior to being entitled to any Shares, I will execute and deliver all agreements, if any, required by Section 5 of the Stock Option Agreement, as the Company shall determine in its sole discretion.

Very truly yours,

_____

[Name]

Exhibit 10.10

Certain identified information has been marked in the exhibit because it is both (i) not material and (ii) would likely cause competitive harm to the Company, if publicly disclosed. Double asterisks denote omissions.

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "AGREEMENT"), dated as of January 6, 2017 (the "EFFECTIVE DATE"), by and between YALE UNIVERSITY, a corporation organized and existing under and by virtue of a charter granted by the general assembly of the Colony and State of Connecticut and located in New Haven, Connecticut ("YALE"), and INOZYME PHARMA, LLC, a limited liability company formed and existing under the laws of the State of Delaware, and with principal offices located at [**] ("LICENSEE") is effective as of the EFFECTIVE DATE.

R E C I T A L S:

WHEREAS, in the course of research conducted under YALE auspices, BRADDOCK, an employee of YALE, and the other inventors in the BRADDOCK LAB in the course of studying ENPP biology, have produced and may continue to produce compositions of matter, know-how, methods, data and other intellectual property that have and may continue to lead to the discovery and development of active substances and the use thereof that may induce, prevent, modify or otherwise modulate the activation of ENPP for the purpose of diagnosing, preventing or treating a disease or condition (the "INVENTIONS"). Included in the INVENTIONS are:

(a) [**];

(b) [**];

(c) [**];

(d) [**]; and

(e) Retained for Numbering Purposes Only; and

(f) [**];

WHEREAS, as of the EFFECTIVE DATE, BRADDOCK serves or in the near future is expected to serve, on the LICENSEE's Scientific Advisory Board and as a paid consultant to LICENSEE;

WHEREAS, YALE permits its faculty such as BRADDOCK to engage in consulting consistent with YALE policies such as the Yale University Patent Policy (http://ocr.yale.edu/faculty/policies/yale-university-patent-policy) and the policies of the Yale Faculty Handbook (http://provost.yale.edu/faculty-handbook), and LICENSEE acknowledges that BRADDOCK's involvement with LICENSEE is subject to such policies, as such policies may be modified from time-to-time by YALE after the EFFECTIVE DATE;

WHEREAS, YALE wishes to have the INVENTIONS and any resulting patents commercialized to benefit the public good;

WHEREAS, to induce YALE to enter into this AGREEMENT, LICENSEE has represented that it has been formed for the purpose of developing and commercializing PRODUCTS IN CLASS or LICENSED METHODS and that it intends to develop the skill and expertise to seek to develop and commercialize the PRODUCTS IN CLASS or LICENSED METHODS for public use in the LICENSED TERRITORY;

WHEREAS, YALE is willing to grant a license to LICENSEE, subject to the terms and conditions of this AGREEMENT;

WHEREAS, in order to minimize the need, for purposes of this Agreement, to identify the genesis of unpatented know-how, materials and methods incorporated by LICENSEE into its ENPP PRODUCTS during periods when BRADDOCK is MEANINGFULLY INVOLVED at LICENSEE and MEANINGFULLY INVOLVED AT YALE, the parties have agreed that ENPP PRODUCTS, including those that result from the filing and prosecution of patents claiming ENPP PRODUCTS developed by LICENSEE during such period, shall be deemed PRODUCTS IN CLASS under this AGREEMENT; and

WHEREAS, contemporaneous with the execution and delivery of this AGREEMENT, the parties are entering into the RESEARCH AGREEMENT;

NOW THEREFORE, in consideration of these statements and mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, YALE and LICENSEE agree to the terms of this AGREEMENT as follows.

ARTICLE 1 REPRESENTATIONS AND WARRANTIES

1.1 LICENSEE represents and warrants to YALE as follows:

(a) LICENSEE is a limited liability company duly formed and in good standing under the laws of the State of Delaware; has all corporate power to carry on its business as presently conducted and to own and operate its properties and assets;

(b) The execution, delivery and performance by LICENSEE of this AGREEMENT have been duly authorized by all necessary corporate action by LICENSEE;

(c) There is no pending or, to LICENSEE’s knowledge, threatened litigation involving LICENSEE which would have any material adverse effect on this AGREEMENT or on LICENSEE’s ability to perform its obligations hereunder; and

(d) There is no indenture, contract or other agreement to which LICENSEE is a party or by which LICENSEE is bound which prohibits or would prohibit the execution and delivery by LICENSEE of this AGREEMENT or the performance or observance by LICENSEE of any material term or provision of this AGREEMENT.

1.2 YALE represents and warrants to LICENSEE as follows:

(a) The execution, delivery and performance by YALE of this AGREEMENT have been duly authorized by all necessary corporate action on the part of YALE and YALE has all right, power and authority necessary to grant the LICENSE and to perform its obligations hereunder;

(b) [**], there is no pending or, threatened patent or contract litigation involving YALE which would have any material adverse effect on this AGREEMENT or on YALE's ability to perform its obligations hereunder;

(c) [**], there is no indenture, contract or other agreement to which YALE is a party or by which YALE is bound which prohibits or would prohibit the execution and delivery by YALE of this AGREEMENT or the performance or observance by YALE of any material term or provision of this AGREEMENT;

(d) [**] YALE holds all right, title and interest in and to the LICENSED PATENTS existing as of the EFFECTIVE DATE and is the sole and exclusive owner thereof, subject only to the rights, if any, of the United States government and its agencies, as specified in Section 3.5; and

(e) [**]; and

(f) As of the EFFECTIVE DATE, [**], YALE has adequate right, title and interest in and to the LICENSED MATERIALS and LICENSED METHODS listed or summarized in Exhibit 2.25 and existing as of the EFFECTIVE DATE sufficient to grant the LICENSE thereof to LICENSEE under this AGREEMENT [**]; *provided, however,* that LICENSEE represents and warrants to YALE that it has for LICENSED MATERIALS listed in Exhibit 2.25 (or will have for future LICENSED MATERIALS) acquired all necessary licenses to THIRD PARTY intellectual property in LICENSED MATERIALS prior to requesting shipment of LICENSED MATERIAL that contains such THIRD PARTY intellectual property; and

(g) Except as set forth on Appendix C, as of the EFFECTIVE DATE, [**] YALE's Office of Cooperative Research [**]; and

1.3 YALE further represents to LICENSEE as follows:

(a) [**] YALE will [**].

(b) YALE will [**] the EFFECTIVE DATE, YALE's [**] YALE's [**]; and

(c) [**] YALE shall [**], and [**] may undertake with respect to ENPP TECHNOLOGY and ENPP PRODUCTS; and

(d) [**] YALE [**] pursuant to this AGREEMENT and [**] as of the EFFECTIVE DATE [**] YALE, and in the case of [**] the EFFECTIVE DATE [**] YALE, [**].

1.4 At the time of [**] the EFFECTIVE DATE, YALE shall in such amendment [**] such amendment [**], unless otherwise specified in such amendment by YALE in statements or exceptions that YALE includes in such amendment, that YALE holds all right, title and interest in such future LICENSED PATENT and is the sole and exclusive owner thereof, subject only to the rights, if any, of the United States government and its agencies, as specified in Section 3.5.

ARTICLE 2 DEFINITIONS

The following terms used in this AGREEMENT shall be defined as set forth below:

2.1 "AFFILIATE" shall mean any entity or person that directly or indirectly controls, is controlled by or is under common control with LICENSEE. For purposes of this definition, "control" means possession of the power to direct the management of such entity or person, whether through ownership of more than Fifty Percent (50%) of voting securities, by contract or otherwise.

2.2 "APPROVED PRODUCT" shall mean a PRODUCT, the sale, marketing, and use of which in humans (or other animals) has been approved by the FDA, or, as to a PRODUCT sold, marketed, or used in a country other than the United States, that has been approved to the extent necessary by the comparable required government authority in such country.

2.3 "BRADDOCK" shall mean Dr. Demetrios Braddock .

2.4 "BRADDOCK LAB" shall mean any one or more of YALE's employees, students or contractors from time to time working under the direct supervision of BRADDOCK as members of his laboratory at YALE.

2.5 CHANGE OF CONTROL" shall mean:

[**].

2.6 "CLAIMS" is defined in Section 14.1.

2.7 "CONFIDENTIAL INFORMATION" shall mean all information disclosed by one party to the other during the negotiation of or under this AGREEMENT in any manner, whether in writing or orally, visually or in tangible form, that relates to the ENPP TECHNOLOGY or this AGREEMENT, unless such information is subject to an exception described in Section 8.2 and shall include the terms of any sublicense or proposed sublicense and any information or reports of or about any SUBLICENSEE that LICENSEE may from time to time provide to YALE pursuant to this AGREEMENT; provided, however, that CONFIDENTIAL INFORMATION that is disclosed in tangible form shall be marked "Confidential" at the time of disclosure and CONFIDENTIAL INFORMATION that is disclosed orally or visually shall be identified as confidential at the time of disclosure and subsequently reduced to writing, marked confidential and delivered to the other party within [**] of such disclosure. CONFIDENTIAL INFORMATION shall include, without limitation, materials, know-how and data, technical or non-technical, inventions, methods and processes, whether or not patentable and all information provided by LICENSEE to YALE pursuant to Sections 7.3 and 9.3. [**], CONFIDENTIAL INFORMATION shall be deemed to [**].

2.8 "EARNED ROYALTY" is defined in Section 6.1.

2.9 "EFFECTIVE DATE" shall mean the date set forth in the first paragraph of this AGREEMENT.

2.10 “ENPP” shall mean any ectonucleotide pyrophosphatase/phosphodiesterase enzymes.

2.11 “ENPP PRODUCT” shall mean any PRODUCT that uses an ENPP or an agonist or antagonist of ENPP, its receptors, substrates, or ENPP enzymatic products to induce, prevent, modify or otherwise modulate a response or activity for the purpose of diagnosing, preventing or treating a disease or condition in humans or non-human animals.

2.12 “ENPP TECHNOLOGY” shall mean LICENSED PATENTS, LICENSED KNOW-HOW, LICENSED MATERIALS, LICENSED METHODS and all inventions and any information, know-how, technical and non-technical data, methods and processes and any drawings, plans, diagrams, specifications, and/or other documents or data form containing such information that directly relates to (i) one or more ENPPs and the activity, modification and/or modulation thereof or (ii) ENPP PRODUCTS (including, but not limited to, the composition, method of use or method of manufacture of ENPP PRODUCTS).

2.13 “FDA” shall mean the United States Food and Drug Administration or any comparable governmental agency in any territory with regulatory authority in or for a country or group of countries other than the United States.

2.14 “FEDERAL PATENT POLICY” is defined in Section 3.5.

2.15 “FIRST SALE” shall mean the first sale to a THIRD PARTY of any PRODUCT IN CLASS in any country in which such product is an APPROVED PRODUCT, or the first sale to a THIRD PARTY of a service using a LICENSED METHOD. If LICENSEE is providing services to a THIRD PARTY in the context of a sublicense of the ENPP TECHNOLOGY or a drug development collaboration with such THIRD PARTY, the provision of such services shall not qualify as a FIRST SALE.

2.16 “GAAP” is defined in Section 9.3

2.17 “IND” shall mean an Investigational New Drug and/or Diagnostic application filed with the FDA prior to beginning clinical trials in humans (or other animals) in the United States or in or for any country or group of countries outside the United States.

2.18 “IND APPROVAL” shall mean approval of an IND filed with the FDA.

2.19 “INDEMNIFIED PERSONS” is defined in Section 14.1.

2.20 “INVENTIONS” is defined in the recitals to this AGREEMENT.

2.21 “INVENTOR AGREEMENT” shall mean a consulting or other agreement directly between LICENSEE, SUBLICENSEE, or an AFFILIATE and BRADDOCK or any employee of or student at YALE who is in the BRADDOCK LAB.

2.22 “INSOLVENT” shall mean that LICENSEE (i) has ceased generally to pay its debts in the ordinary course of business when due, (ii) is insolvent as defined by the United States Federal Bankruptcy Code, as amended from time to time, or (iii) has commenced bankruptcy, reorganization, receivership or insolvency proceedings, or any other proceeding under any Federal, state or other law for the relief of debtors.

2.23 “LICENSE” is defined in Section 3.4.

2.24 “LICENSED KNOW-HOW” shall mean, [**] information, knowhow, technical and non-technical data, concepts, processes and any drawings, plans, diagrams, specifications, and/or other documents or data forms containing such information (collectively, the “KNOW-HOW”), that is solely owned by YALE, [**] prior to [**], that may be used for the discovery, development, selection, improvement of, or use as, an ENPP PRODUCT or LICENSED METHOD and that: [**]. A summary of LICENSED KNOW-HOW existing prior to the EFFECTIVE DATE are listed in Exhibit 2.25.

2.25 “LICENSED MATERIALS” shall mean tangible materials (including, but not limited to, pharmaceutical, chemical and biochemical products) (collectively, the “MATERIALS”) discovered, developed or acquired by or on behalf of BRADDOCK or the BRADDOCK LAB [**] that may be used for the discovery, development, selection, improvement of or use as an ENPP PRODUCT or LICENSED METHOD, that is provided to LICENSEE by BRADDOCK or the BRADDOCK LAB and that, [**] may be used for the discovery, development, selection, improvement of, or use as, an ENPP PRODUCT or LICENSED METHOD. LICENSED MATERIALS existing prior to the EFFECTIVE DATE are listed in Exhibit 2.25.

2.26 “LICENSED METHODS” shall mean any method, procedure, service or process that may be used for the discovery, development, selection, improvement of, or use as, an ENPP PRODUCT (collectively, the “METHODS”), discovered, developed or acquired by or on behalf of BRADDOCK or the BRADDOCK LAB, [**], the practice of which, in the absence of a license from YALE, would infringe a VALID CLAIM of a LICENSED PATENT or which uses or is derived from LICENSED KNOW-HOW, LICENSED MATERIALS, and/or the LICENSED PATENTS, in each case that is disclosed to LICENSEE by BRADDOCK or the BRADDOCK LAB (or by YALE on behalf of BRADDOCK) and, that, [**]. LICENSED METHODS existing prior to the EFFECTIVE DATE are listed or summarized in Exhibit 2.25.

2.27 “LICENSED PATENTS” shall mean:

(a) the United States or foreign patent application(s) and patents(s) listed in Appendix A and owned by YALE during the TERM;

(b) [**];

(c) any continuations, divisionals, and continuations-in-part, and continued prosecution application(s), to the extent the claims of any such patent or patent application are directed to subject matter specifically described in the patent applications described in clause (a) or (b);

(d) any reissues, re-examinations, renewals, or extensions of patent applications or patents described in clause (a), (b) or (c), or substitutes therefor; and

(e) the relevant international equivalents of any of the patents or patent applications described in clause (a), (b), (c) or (d).

Appendix A is incorporated into this AGREEMENT.

2.28 "LICENSED TERRITORY" shall mean Worldwide.

2.29 "LICENSEE PATENT" shall mean:

(a) any United States or foreign patent application(s) and patents(s) filed by or on behalf of LICENSEE [**];

(b) any continuations, divisionals, and continuations-in-part, and continued prosecution application(s), to the extent the claims of any such patent or patent application are directed to subject matter specifically described in the patent applications described in clause (a);

(c) any reissues, re-examinations, renewals, or extensions of patent applications or patents described in clause (a) or (b), or substitutes therefor; and

(d) the relevant international equivalents of any of the patents or patent applications described in clause (a), (b) or (c).

2.30 "LMR" is defined in Section 5.2.

2.31 "MEANINGFULLY INVOLVED AT LICENSEE" shall mean a situation whereby BRADDOCK has an active consulting agreement with LICENSEE, or is a member of the Scientific Advisory Board of LICENSEE, or has an arrangement whereby BRADDOCK provides advice on a regular basis to LICENSEE. Without limiting the foregoing, the parties agree that BRADDOCK has been MEANINGFULLY INVOLVED AT LICENSEE from the date LICENSEE was formed (i.e., September 11, 2015) through the EFFECTIVE DATE.

2.32 "MEANINGFULLY INVOLVED AT YALE" shall mean a situation whereby BRADDOCK [**].

2.33 "MINIMUM DIRECT COSTS" is defined in Section 7.5.

2.34 "MRP" is defined in Section 6.3.

2.35 "NDA" shall mean (i) a New Drug Application or Biologic License Application filed with the FDA to obtain marketing approval for a PRODUCT IN CLASS in the United States; or (ii) a foreign equivalent of (i).

2.36 "NET SALES" shall mean:

(a) gross invoice price from the sale, lease or other transfer or disposition, other than by sublicense, of a PRODUCT IN CLASS or LICENSED METHOD, or from services performed using a PRODUCT IN CLASS or LICENSED METHOD, by LICENSEE or any SUBLICENSEE or AFFILIATE to third parties, except as set forth in Section 2.36(b), in each case from and after the FIRST SALE of such PRODUCT IN CLASS or LICENSED METHOD, less

the following deductions, provided they actually pertain to the disposition of the PRODUCTS IN CLASS or LICENSED METHODS and, in the case of the items specified in the immediately succeeding clauses (i), (ii) and (iii), are separately stated on the applicable invoice:

(i) all discounts, credits and allowances on account of returns;

(ii) transportation and insurance; and

(iii) duties, taxes and other governmental charges levied on the sale, transportation or delivery of PRODUCTS IN CLASS or practice of the LICENSED METHODS, but not including income taxes.

No deductions shall be made for any other costs or expenses, including, but not limited to, commissions to independent sales agents or those on LICENSEE's or a SUBLICENSEE's or AFFILIATE's payroll or for the cost of collection.

(b) "NET SALES" shall not include the gross invoice price for PRODUCTS IN CLASS or LICENSED METHODS sold to, or services performed using PRODUCTS IN CLASS or LICENSED METHODS for, any AFFILIATE unless such AFFILIATE is an end-user of any PRODUCT IN CLASS or LICENSED METHOD, in which case such consideration shall be included in NET SALES at the average selling price charged to a THIRD PARTY during the same quarter.

2.37 "PATENT POLICY" shall mean YALE's official policy regarding discoveries or inventions both patentable and practical made by YALE faculty, staff, fellows, students, and other individuals as described at the following site: http://ocr.yale.edu/faculty/policies/yale-university-patent-policy and as may be modified and published by YALE from time to time after the EFFECTIVE DATE.

2.38 "PHASE 1 STUDY" shall mean a human clinical trial in any country that is intended to evaluate initially the safety of an investigational PRODUCT IN CLASS in volunteer subjects or patients that would satisfy the requirements of 21 CFR 312.21(a), or other comparable regulation imposed by the FDA or its foreign counterpart.

2.39 "PHASE 2 STUDY" shall mean a human clinical trial in any country that is conducted to evaluate the effectiveness of the PRODUCT IN CLASS for a particular indication or indications in patients with the disease or condition under study and to determine the common short-term side effects and risks associated with the drug that would satisfy the requirements of 21 CFR 312.21(b), or other comparable regulation imposed by the FDA or its foreign counterpart.

2.40 "PHASE 3 STUDY" shall mean a pivotal human clinical trial in any country the results of which could be used to establish safety and efficacy of a PRODUCT IN CLASS as a basis for a marketing application that would satisfy the requirements of 21 CFR 312.21(c) or other comparable regulation imposed by the FDA or its foreign counterpart.

2.41 "PIVOTAL TRIAL" shall mean a controlled clinical trial to evaluate the safety and efficacy of a given PRODUCT IN CLASS in humans. Each such clinical trial should show safety and efficacy to a statistical significance and suffice as demonstration of such PRODUCT IN CLASS's safety and efficacy such that the results of said trial are the basis for the filing of an NDA for such a PRODUCT IN CLASS.

2.42 “PLAN” is defined in Section 7.1.

2.43 “PRODUCT” shall mean any form of product, including but not limited to, a service, a method, a diagnostic (or the like), an apparatus, a kit, a drug and other type of therapeutic or prophylactic for human (or other) disease or condition, including, without limitation, gene therapy constructs, small molecules, proteins, peptides, peptidomimetics, antisense constructs, antibody-drug conjugates or any other natural or synthetic molecule, and assays run in reference labs for fee-for-service diagnostic tests.

2.44 “PRODUCT IN CLASS” shall mean any ENPP PRODUCT [**].

(a) Notwithstanding the foregoing in this definition, PRODUCT IN CLASS shall not include:

(x) [**]; or

(y) [**]; *provided, however*,

(b) Notwithstanding the foregoing in (a) of this definition [**] in this definition [**] in this definition [**] shall be a PRODUCT IN CLASS.

2.45 “QUALIFIED SUBLICENSEE” shall mean a SUBLICENSEE that (1) is a company whose products or services primarily use biotechnology methods for their production, design or delivery, and whose market capitalization or fair market value exceeds $[**] at the end of such SUBLICENSEE’s most recent fiscal year preceding the effective date of the proposed sublicense or (2) is a pharmaceutical company with at least $[**] of sales of products or services that use biotechnology methods for their production, design or delivery in its most recent fiscal year preceding the effective date of the proposed sublicense.

2.46 “REASONABLE COMMERCIAL EFFORTS” shall mean documented efforts:

(a) that are consistent with those utilized by companies of similar size and type and at a similar stage of corporate development to LICENSEE, which companies have successfully developed therapeutic or prophylactic products similar to the proposed PRODUCTS IN CLASS described in the PLAN and/or services of a type similar to LICENSED METHODS described in the PLAN; and

(b) that are consistent with the interests of LICENSEE’s stockholders and the development of a PRODUCT IN CLASS and/or commercial application of LICENSED METHODS and that constitute a prudent and commercially reasonable use of LICENSEE’s capital resources; and

(c) that are evidenced by a record of incurring MINIMUM DIRECT COSTS, which shall include the RESEARCH SUPPORT, and additional documented expenditures appropriate to the stage of development of one or more PRODUCTS IN CLASS and/or commercial application of LICENSED METHODS.

2.47 “REDUCED EARNED ROYALTY” is defined in Section 6.1.

2.48 “RESEARCH AGREEMENT” shall mean the Corporate Sponsored Research Agreement, dated as of the EFFECTIVE DATE, by and between YALE and LICENSEE, as the same may be amended, extended, renewed or replaced from time to time.

2.49 “RESEARCH PROGRAM” shall mean the research program that will be conducted under the RESEARCH AGREEMENT.

2.50 “RESEARCH SUPPORT” shall mean amounts payable by LICENSEE to YALE under the RESEARCH AGREEMENT.

2.51 “SECTION 1.2 BREACH” is defined in Section 3.9.

2.52 “SECTION 1.2 LIABILITY” is defined in Section 3.9.

2.53 “SUBLICENSEE” shall mean any THIRD PARTY sublicensed by LICENSEE to make, have made, use, sell, offer for sale, have sold, import or export any PRODUCT IN CLASS or to practice any LICENSED METHOD.

2.54 “SUBLICENSE INCOME” shall mean consideration in any form actually received by LICENSEE or an AFFILIATE in connection with a grant to any THIRD PARTY or parties of a sublicense, cross-license, or other right, license, privilege or immunity to make, have made, use, sell, have sold, distribute, import or export PRODUCTS IN CLASS or to practice the ENP TECHNOLOGY, but excluding consideration that may be received by LICENSEE or an AFFILIATE as a royalty (or similar consideration) on sales of such PRODUCTS IN CLASS. SUBLICENSE INCOME shall include, without limitation, but subject to the following sentence, any license signing fee, license maintenance fee, unearned portion of any minimum royalty payment received by LICENSEE, equity interest in a person and/or entity other than LICENSEE or an AFFILIATE and any distribution or joint marketing fee. SUBLICENSE INCOME shall not include:

(a) [**];

(b) [**]; or

(c) [**].

In case [**], as described in clause [**] above, is [**] within [**] thereafter LICENSEE shall [**] YALE [**] SUBLICENSE INCOME. YALE [**] LICENSEE [**].

2.55 “SUCCESSFUL FINANCING” shall mean cumulative funding raised by LICENSEE of at least $[**], excluding grant funding.

2.56 “TERM” is defined in Section 3.7.

2.57 “TERMINATION EVENT” shall mean:

(a) LICENSEE fails to make any payment whatsoever due and payable pursuant to this AGREEMENT and LICENSEE shall fail to make all such payments (and to pay all interest due on such payments under Section 6.4) for [**] after receipt of written notice of such failure from YALE; or

(b) LICENSEE commits a material breach of any provision of this AGREEMENT (other than as provided in the immediately preceding clause (a)) which breach (1) if capable of being cured, shall continue uncured for [**] after LICENSEE receives written notice thereof from YALE, which notice shall identify such breach in reasonable detail, or (2) is incapable of being cured; or

(c) LICENSEE fails to obtain or maintain insurance as described in Article 14; or

(d) LICENSEE gives notice to YALE pursuant to Section 7.4(a) or (b);

(e) the occurrence of any of the events set forth in Section 7.4(a) or (b);

(f) LICENSEE has failed to:

(i) achieve the SUCCESSFUL FINANCING within [**] after the EFFECTIVE DATE; or

(ii) after completion of the SUCCESSFUL FINANCING, incur documented direct expenditures of at least $[**] per calendar year (pro rated for any partial calendar year) towards the discovery, development, manufacture or sale of PRODUCTS IN CLASS, including amounts incurred by SUBLICENSEES and AFFILIATES (for purposes of this clause (ii), amounts paid by LICENSEE under the RESEARCH AGREEMENT shall be deemed direct expenditure on the discovery, development, manufacture or sale of a PRODUCT IN CLASS); or

(iii) file an IND for a PRODUCT IN CLASS with the FDA within three (3) years after completion of the SUCCESSFUL FINANCING;

(iv) following the [**] for a PRODUCT IN CLASS, [**] of a PRODUCT IN CLASS, which shall be evidenced by [**] period starting from the [**] for a PRODUCT IN CLASS:

(a) [**];

(b) [**];

(c) [**] of a PRODUCT IN CLASS;

(d) [**] with respect to a PRODUCT IN CLASS;

(e) [**] for a PRODUCT IN CLASS;

(f) [**] for a PRODUCT IN CLASS; or

(g) [**].

For purposes of the immediately preceding clauses (iii) and (iv), actions and activities of LICENSEE's AFFILIATES and SUBLICENSEE with respect to a PRODUCT IN CLASS shall be deemed actions of LICENSEE.

2.58 "TERMINATION EVENT INFORMATION NOTICE" is defined in Section 13.4(a).

2.59 "TERMINATION EVENT NOTICE" is defined in Section 13.4(a).

2.60 "THIRD PARTY" or "THIRD PARTIES" shall mean any person or entity other than YALE, LICENSEE, or an AFFILIATE.

2.61 "VALID CLAIM" shall mean, as the context requires, (i) an issued and unexpired claim of a LICENSED PATENT so long as such claim shall not have been irrevocably abandoned or declared to be invalid in an unappealable decision of a court or other authority of competent jurisdiction through no fault or cause of LICENSEE or (ii) an issued and unexpired claim of an LICENSEE PATENT so long as such claim shall not have been irrevocably abandoned or declared to be invalid in an unappealable decision of a court or other authority of competent jurisdiction.

ARTICLE 3 LICENSE GRANT AND TERM

3.1 Subject to all the terms and conditions of this AGREEMENT, YALE hereby grants to LICENSEE an exclusive license under all of YALE's interest in the LICENSED PATENTS, LICENSED MATERIALS and LICENSED METHODS to make, have made, use, sell, offer for sale, have sold, import or export therapeutic and prophylactic ENPP PRODUCTS in the LICENSED TERRITORY, with the right to sublicense as provided in this AGREEMENT. Any LICENSED PATENT described in Article 2.27(b) shall become part of the LICENSE under this AGREEMENT by an amendment to this AGREEMENT pursuant to Article 17.6.

3.2 Subject to all the terms and conditions of this AGREEMENT, YALE hereby grants to LICENSEE a non-exclusive license under all of YALE's interest in the LICENSED PATENTS, LICENSED METHODS and LICENSED MATERIALS to make, have made, use, sell, offer for sale, have sold, import or export diagnostic ENPP PRODUCTS within the LICENSED TERRITORY, with the right to sublicense as provided in this AGREEMENT.

3.3 Subject to all the terms and conditions of this AGREEMENT, YALE hereby grants to LICENSEE a non-exclusive license under all of YALE's interest in the LICENSED KNOW-HOW to make, have made, use, sell, offer for sale, have sold, import or export any ENPP PRODUCT, method, procedure, service or process in the LICENSED TERRITORY, with the right to sublicense as provided in this AGREEMENT.

3.4 (a) Collectively, the rights granted to LICENSEE under Section 3.1, Section 3.2 and Section 3.3 shall be the "LICENSE". The LICENSE is further subject to all the terms and conditions of this AGREEMENT, including, without limitation, YALE's right to terminate the LICENSE in accordance with the terms of this AGREEMENT if a TERMINATION EVENT has occurred and is continuing by reason of, among other things, LICENSEE's failure to pay all amounts due to YALE pursuant to Articles 5, 6, and 10 and LICENSEE's failure to comply with Section 7.5.

(b) Part of the consideration received by YALE for the grant of the LICENSE is LICENSEE's obligation under the RESEARCH AGREEMENT to provide RESEARCH SUPPORT in the aggregate amount of One Million Three Hundred Seventy-Nine Thousand Nine Hundred and Ninety-Nine Dollars ($1,379,996.00) according to the following total annual budget of:

[**]	**[**]**	**[**]**
[**]	**[**]**	**[**]**

provided for in the RESEARCH AGREEMENT. [**] in case of termination of the RESEARCH AGREEMENT, LICENSEE shall have paid all costs for which LICENSEE is responsible under the RESEARCH AGREEMENT and which costs were incurred by YALE and unpaid by the LICENSEE through the date of termination, including, without limitation, all non-reimbursed costs and non-cancelable commitments of YALE relating to the RESEARCH AGREEMENT, that are incurred prior to the date of termination of the RESEARCH AGREEMENT, but in the case of personnel costs, no more than salary and benefits of such personnel provided for under the RESEARCH AGREEMENT [**]. YALE shall use reasonable best efforts to mitigate such costs and commitments, consistent with YALE's normal policies and practices with regard to termination or transfer of, or assistance in seeking other employment for, such personnel. Expiration or termination of the RESEARCH AGREEMENT in accordance with its terms shall not be deemed a termination of this AGREEMENT.

3.5 To the extent that any invention included within the LICENSED PATENTS has been funded in whole or in part by the United States government, the United States government retains certain rights in such invention as set forth in 35 U.S.C. §200-212 and all regulations promulgated thereunder, as amended, and any successor statutes and regulations (the "FEDERAL PATENT POLICY"). As a condition of the grant of the LICENSE, LICENSEE acknowledges and shall comply with all aspects of the FEDERAL PATENT POLICY applicable to the LICENSED PATENTS, including the obligation that PRODUCTS IN CLASS used or sold in the United States be manufactured substantially in the United States. Nothing contained in this AGREEMENT obligates or shall obligate YALE to take any action that would conflict in any respect with its past, current or future obligations to the United States Government under the FEDERAL PATENT POLICY with respect to the LICENSED PATENTS.

3.6 The LICENSE is expressly made subject to YALE's reservation of the right, on behalf of itself and all other non-profit academic research institutions, to make, use and practice the ENPP TECHNOLOGY for academic research, clinical, teaching or other non-commercial purposes, and not for purposes of commercial development, use, manufacture, sale or distribution. Nothing in this AGREEMENT shall be construed to grant by implication, estoppel or otherwise any licenses under patents of YALE other than the LICENSED KNOW-HOW, LICENSED MATERIALS, LICENSED METHODS, and LICENSED PATENTS.

3.7 The term of the LICENSE (the "TERM") shall commence on the EFFECTIVE DATE and, unless terminated earlier as provided in Article 13, shall automatically expire, on a country-by-country basis, on the date that is the latest of whichever of the following is applicable:

(a) the date on which the last of the VALID CLAIMS of the patents included in the LICENSED PATENTS in such country expires, lapses or is declared to be invalid by a final decision of a court or other authority of competent jurisdiction, not subject to further appeal, through no fault or cause of LICENSEE; and

(b) the date that is ten (10) years after the last LICENSED KNOW-HOW, LICENSED MATERIALS, or LICENSED METHODS have been provided to LICENSEE by YALE under this AGREEMENT; and

(c) the date that is ten (10) years from the date of FIRST SALE of a PRODUCT IN CLASS;

but in no event shall the TERM end later than the date that is thirty (30) years after the EFFECTIVE DATE.

3.8 YALE hereby agrees that, after the EFFECTIVE DATE and for so long as BRADDOCK is MEANINGFULLY INVOLVED AT YALE and MEANINGFULLY INVOLVED AT LICENSEE, [**] and claimed in any LICENSED PATENT.

3.9 In the event of a CHANGE OF CONTROL, LICENSEE's successor shall have the right, exercisable by written notice to YALE given prior to such CHANGE OF CONTROL, to elect that upon the occurrence of such CHANGE OF CONTROL, for purposes of this AGREEMENT, [**].

3.10 To the extent that any MATERIALS provided by BRADDOCK or the BRADDOCK LAB to LICENSEE on or after the EFFECTIVE DATE are not owned One Hundred Percent (100%) by YALE, YALE shall, [**] LICENSEE [**] YALE's [**]. It is the parties' intention, [**] the EFFECTIVE DATE, [**] the parties.

3.11 To the extent that any METHODS provided by BRADDOCK or the BRADDOCK LAB to LICENSEE after the EFFECTIVE DATE are not owned One Hundred Percent (100%) by YALE, YALE shall [**] LICENSEE [**] YALE's [**].

ARTICLE 4 SUBLICENSES

4.1 Any sublicense by LICENSEE to a QUALIFIED SUBLICENSEE of the rights granted to LICENSEE under this AGREEMENT shall comply with the provisions of Sections 4.2, 4.3 and 4.4. In addition to the foregoing in this Section 4.1, any sublicense by LICENSEE to a SUBLICENSEE who is not a QUALIFIED SUBLICENSEE of the rights granted to LICENSEE under this AGREEMENT shall also comply with the provisions of Section 4.5.

4.2 (a) [**] the related definitions in this AGREEMENT. LICENSEE will provide YALE with a copy of each sublicense agreement (and all amendments thereof) within [**] of execution of such agreement or amendment. A breach of this provision shall be a TERMINATION EVENT.

(b) So long as [**], LICENSEE shall be responsible for enforcing the provisions of such sublicense.

4.3 LICENSEE shall pay royalties to YALE on NET SALES of SUBLICENSEES based on the same royalty rate as apply to NET SALES by LICENSEE and its AFFILIATES under Article 6, regardless of the royalty rates payable by SUBLICENSEES to LICENSEE under a sublicense agreement. In addition, LICENSEE shall pay to YALE [**] Percent ([**]%) of any SUBLICENSE INCOME.

4.4 LICENSEE agrees that it shall:

(a) within [**] of execution by the parties, provide YALE with a copy of any amendments to sublicenses granted by LICENSEE under this AGREEMENT, and within [**] after termination of any sublicense, notify YALE of such termination; and

(b) within [**] of receipt, provide complete copies of all reports provided to LICENSEE by each SUBLICENSEE pursuant to any sublicense; *provided, however*, [**]; and

(c) use commercially reasonable efforts to seek compliance in all material respects by each SUBLICENSEE with the terms of the sublicense to which such SUBLICENSEE is a party.

4.5 Any proposed sublicense by LICENSEE to a SUBLICENSEE who is not a QUALIFIED SUBLICENSEE shall be subject to prior written approval by YALE. [**] LICENSEE [**] YALE [**] YALE's [**] YALE shall [**] LICENSEE [**] LICENSEE [**] YALE [**] YALE's [**].

4.6 If LICENSEE proposes to enter into a sublicense that does not include terms that require SUBLICENSEE thereunder to agree substantially as provided in Sections 7.1 and 7.2 of this AGREEMENT (and the related definitions) with respect to the subject matter of such sublicense, then [**] YALE [**]. YALE's [**] of this AGREEMENT. YALE [**] LICENSEE [**] YALE [**] LICENSEE [**] YALE [**] LICENSEE's [**] YALE'S [**] YALE [**] LICENSEE [**] YALE'S [**].

ARTICLE 5 LICENSE ISSUE ROYALTY; LICENSE MAINTENANCE ROYALTY; MILESTONE ROYALTIES

5.1 LICENSEE shall pay to YALE, within [**] after closing of the SUCCESSFUL FINANCING, a) a non-refundable license issue royalty of Sixty Thousand One Hundred Forty Eight Dollars and Ninety-Two Cents ($60,148.92), which is intended to reflect YALE's unreimbursed patent expenses incurred prior to the EFFECTIVE DATE and (b) the amount of YALE's unreimbursed patent expenses incurred prior to the EFFECTIVE DATE and not reflected in the amount specified in the immediately preceding clause (a). In addition, LICENSEE shall pay

the amount of YALE's unreimbursed patent expenses incurred on or after the EFFECTIVE DATE to the date of the closing of the SUCCESSFUL FINANCING within [**] after closing of the SUCCESSFUL FINANCING; *provided however*, the amounts due in (b) shall be payable no later than [**] after the EFFECTIVE DATE.

5.2 During the TERM, LICENSEE agrees to pay to YALE an annual license maintenance royalty ("LMR") commencing with the first anniversary of EFFECTIVE DATE, until LICENSEE starts to pay MRP under Section 6.3, according to the following schedule:

Anniversary of the EFFECTIVE DATE	LMR
Anniversaries 1-[**]	[**]
[**]	[**]
[**]	[**]

5.3 LICENSEE shall pay YALE, for each therapeutic or prophylactic PRODUCT IN CLASS that is developed by LICENSEE or an AFFILIATE, a non-refundable milestone royalty of Three Million Dollars ($3,000,000.00) when LICENSEE [**].

5.4 Notwithstanding Section 5.3, for each therapeutic or prophylactic PRODUCT IN CLASS for which [**] occurs [**], LICENSEE shall pay the following milestone royalties:

(a) a non-refundable milestone royalty of [**] Dollars ($[**]) upon the [**] for each such PRODUCT IN CLASS; and

(b) a non-refundable milestone royalty of [**] Dollars ($[**]) upon the [**] for each such PRODUCT IN CLASS; and

(c) a non-refundable milestone royalty of [**] Dollars ($[**]) upon the [**] for each such PRODUCT IN CLASS; and

(d) a non-refundable milestone royalty of [**] Dollars ($[**]) upon the [**] of each such PRODUCT IN CLASS.

Each of the foregoing milestone royalties shall be payable only once for each therapeutic or prophylactic PRODUCT IN CLASS, even if such PRODUCT IN CLASS achieves a given milestone more than once.

5.5 In case of a [**] effective date [**], LICENSEE shall [**]. In case of any such [**] the effective date [**] the effective date of the [**], LICENSEE [**] YALE [**] the effective date of [**].

5.6 LICENSEE shall pay YALE, for each diagnostic PRODUCT IN CLASS that is developed by LICENSEE, a non-refundable milestone royalty of [**] Dollars ($[**]) when LICENSEE and/or an AFFILIATE [**].

5.7 Notwithstanding Section 5.6, [**], LICENSEE shall pay the following milestone royalties:

(a) a non-refundable milestone royalty of [**] Dollars ($[**]) when LICENSEE [**] for each such PRODUCT IN CLASS; and

(b) a non-refundable milestone royalty of [**] Dollars ($[**]) when LICENSEE [**] for each such PRODUCT IN CLASS; and

(c) a non-refundable milestone royalty of [**] Dollars ($[**]) when LICENSEE [**] of each such PRODUCT IN CLASS.

Each of the foregoing milestone royalties shall be payable only once for each diagnostic PRODUCT IN CLASS, even if such PRODUCT IN CLASS achieves a given milestone more than once.

5.8 In case of a [**] effective date [**], LICENSEE shall [**]. In case of any such [**] the effective date [**] the effective date of the [**], LICENSEE [**] YALE [**] the effective date of [**].

5.9 In case a particular PRODUCT IN CLASS is both a therapeutic or prophylactic and a diagnostic and such therapeutic or prophylactic PRODUCT IN CLASS is or is intended to be marketed and sold separate from such diagnostic PRODUCT IN CLASS and such diagnostic PRODUCT IN CLASS is or is intended to be marketed and sold for a use other than determining the suitability of the use of such therapeutic or prophylactic PRODUCT IN CLASS in particular patients, then milestone royalties for both the therapeutic or prophylactic and the diagnostic PRODUCT IN CLASS under Sections 5.3, 5.4, 5.6 or 5.7 shall be due to YALE under this AGREEMENT.

5.10 None of the license issue royalty set forth in Section 5.1, the LMR set forth in Section 5.2 or the milestone royalties set forth in Sections 5.3, 5.4, 5.6 or 5.7 shall be credited against EARNED ROYALTIES payable under Article 6, or treated as SUBLICENSE INCOME or credited against amounts payable by LICENSEE in respect of SUBLICENSE INCOME under Article 4. LICENSEE shall pay the amounts payable to YALE under Sections 5.3 and 5.6 within [**] after the end of LICENSEE's fiscal year in which the applicable NET SALES threshold is met.

5.11 Notwithstanding any other provision of this AGREEMENT, for purposes of determining what constitutes a single or separate therapeutic or prophylactic and/or diagnostic PRODUCTS IN CLASS or a single or separate services using LICENSED METHODS:

(a) [**].

(b) [**].

ARTICLE 6 EARNED ROYALTIES; MINIMUM ROYALTY PAYMENTS

6.1 During the TERM, and subject to the following sentence, as partial consideration for the LICENSE, LICENSEE shall pay to YALE an earned royalty on worldwide cumulative

NET SALES of each PRODUCT IN CLASS or LICENSED METHOD developed by LICENSEE or its SUBLICENSEES or AFFILIATES equal to [**] Percent ([**]%) of such NET SALES (the "EARNED ROYALTY"). If for such a PRODUCT IN CLASS or LICENSED METHOD there is not a VALID CLAIM in either a LICENSED PATENT or a LICENSEE PATENT, in each case concerning such PRODUCT IN CLASS or LICENSED METHOD, then the EARNED ROYALTY on such a PRODUCT IN CLASS or LICENSED METHOD shall be reduced (a "REDUCED EARNED ROYALTY"). The REDUCED EARNED ROYALTY on worldwide cumulative NET SALES of each PRODUCT IN CLASS or LICENSED METHOD developed by LICENSEE or its SUBLICENSEES or AFFILIATES shall be equal to [**] Percent ([**]%) of such NET SALES from and after the date there is no such VALID CLAIM. Unless otherwise stated in this AGREEMENT, any reference to "EARNED ROYALTIES" shall refer to either or both EARNED ROYALTIES and REDUCED EARNED ROYALTIES, as the case may be.

6.2 LICENSEE shall pay all EARNED ROYALTIES accruing to YALE within [**] from the end of each calendar quarter (March 31, June 30, September 30 and December 31), beginning in the first calendar quarter in which NET SALES occur.

6.3 During the TERM, LICENSEE agrees to pay YALE annual Minimum Royalty Payments ("MRP"), commencing on the first anniversary of the EFFECTIVE DATE to occur at least [**] after the date of the FIRST SALE of the first PRODUCT IN CLASS or first service using a LICENSED METHOD that results in NET SALES for such a first PRODUCT IN CLASS or LICENSED METHOD.

(a) If the FIRST SALE that gives rise to LICENSEE's obligation to pay an MRP is for a therapeutic or prophylactic PRODUCT IN CLASS or service using a LICENSED METHOD, then the MRP shall be made according to the following schedule:

Years after FIRST SALE	MRP
[**]	[**]
[**]	[**]

(b) If the FIRST SALE that gives rise to LICENSEE's obligation to pay an MRP is for a diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD, then the MRP shall be made according to the following schedule:

Years after FIRST SALE	MRP
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

(c) Once the LICENSEE has made a FIRST SALE of both a therapeutic or prophylactic PRODUCT IN CLASS or a service using a LICENSED METHOD and a diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD, then thereafter MRP shall be the sum of the amounts indicated in Sections 6.3(a) and 6.3(b). If the FIRST SALE of a

PRODUCT IN CLASS or service using a LICENSED METHOD is both a therapeutic or prophylactic and a diagnostic and such therapeutic or prophylactic PRODUCT IN CLASS or service using a LICENSED METHOD is, or is intended to be, marketed and sold separate from such diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD, as the case may be, and such diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD is, or is intended to be, marketed and sold for a use other than determining the suitability of the use of such therapeutic or prophylactic PRODUCT IN CLASS or service using a LICENSED METHOD in particular patients, then thereafter MRP shall be the sum of the amounts indicated in Sections 6.3(a) and 6.3(b).

(d) Once the MRP commences, LICENSEE shall continue to pay the MRP for PRODUCTS IN CLASS or services using LICENSED METHODS until the end of the TERM, subject to Section 6.3(e). YALE shall fully credit MRP paid against any EARNED ROYALTIES payable by LICENSEE in the same year.

(e) [**].

(f) If at any time the applicable rate of EARNED ROYALTIES for all PRODUCTS IN CLASS and services using any LICENSED METHOD shall become the REDUCED EARNED ROYALTY, then the applicable MRP shall thereafter be [**] percent ([**]%) of the applicable amount from the above schedules, prorated for any period of less than 12 months.

6.4 All EARNED ROYALTIES and other payments due under this AGREEMENT shall be paid to YALE in United States Dollars. In the event that conversion from foreign currency is required in calculating a payment under this AGREEMENT, the exchange rate used shall be the Interbank rate quoted by Citibank, N.A. at the end of the last business day of the quarter in which the royalty was earned. If overdue, the EARNED ROYALTIES and any other payments due under this AGREEMENT shall bear interest until payment at a per annum rate equal to [**] Percent ([**]%) above the prime rate in effect at Citibank, N.A. on the due date, and YALE shall be entitled to recover reasonable attorneys' fees and costs related to the collection of overdue EARNED ROYALTIES or other overdue amounts payable by LICENSEE under this AGREEMENT, following such failure to pay. The payment of such interest shall not foreclose YALE from exercising any other right it may have as a consequence of the failure of LICENSEE to make any payment when due.

ARTICLE 7 DUE DILIGENCE

7.1 LICENSEE has designed a plan for pre-clinical and clinical development of one or more PRODUCTS IN CLASS by use of the ENPP TECHNOLOGY, which plan (i) includes a description of research and development, testing, government approval and manufacturing of PRODUCTS IN CLASS and/or LICENSED METHODS and (ii) after completion of a PIVOTAL TRIAL for a PRODUCT IN CLASS and/or LICENSED METHOD, will additionally include a description of the plan for the marketing and sale or sublicense of such PRODUCTS IN CLASS and/or LICENSED METHODS (as such plan may be supplemented or modified from time to time pursuant to Section 7.3 (the "PLAN"). A copy of the PLAN as of the EFFECTIVE DATE is attached to this AGREEMENT as Appendix B and incorporated herein by reference.

7.2 LICENSEE shall use REASONABLE COMMERCIAL EFFORTS to pursue development and commercialization of PRODUCTS IN CLASS and LICENSED METHODS. The efforts of AFFILIATES and SUBLICENSEES shall be considered LICENSEE efforts for purposes of determining whether LICENSEE is using REASONABLE COMMERCIAL EFFORTS as required by this Section 7.2. LICENSEE shall not pursue development and commercialization of an ENPP PRODUCT that is not a PRODUCT IN CLASS for the sole purpose of avoiding the payment of a royalty to YALE pursuant to Section 6.1.

7.3 No later than [**] after the end of each calendar year during the TERM, LICENSEE shall provide to YALE a written report describing LICENSEE's, SUBLICENSEE's, and/or AFFILIATE's activities and progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales, as applicable, of one or more PRODUCTS IN CLASS or LICENSED METHODS during such year and indicating LICENSEE's progress and problems to date in implementing the PLAN during such year. If during the course of the year covered by such report LICENSEE, SUBLICENSEE or AFFILIATE shall have been involved in REASONABLE COMMERCIAL EFFORTS for more than one actual or proposed PRODUCT IN CLASS or LICENSED METHOD, such report for such year shall provide the information set forth above for each such actual or proposed PRODUCT IN CLASS or LICENSED METHOD. If progress or developments differ from those anticipated in the PLAN, as supplemented by prior reports LICENSEE has provided pursuant to this Section 7.3, then in such report LICENSEE shall identify in reasonable detail the principal differences, state the reasons for the differences and set forth a modified research, development, regulatory approval, manufacturing, sublicensing, marketing and sales plan. Such report shall also include a forecast and schedule of major events required to market the PRODUCTS IN CLASS or LICENSED METHODS under development during such year. Such report shall also include the aggregate MINIMUM DIRECT COSTS actually incurred to the end of the most recent calendar year preceding such report. If LICENSEE shall have sold PRODUCTS IN CLASS during the period covered by such report, then such report shall clearly indicate (a) which of LICENSEE's PRODUCTS sold during such period are PRODUCTS IN CLASS, and which are not PRODUCTS IN CLASS, and (b) which of the LICENSED PATENTS, if any, cover each such PRODUCT IN CLASS. LICENSEE shall also promptly provide any reasonable additional data that YALE by written notice to LICENSEE requests in order to evaluate LICENSEE's exercise of REASONABLE COMMERCIAL EFFORTS during such year. Within [**] following any assignment by LICENSEE pursuant to Section 17.6, the assignee shall provide YALE with an updated and revised copy of the PLAN.

7.4 LICENSEE shall immediately notify YALE if at any time LICENSEE (a) abandons or suspends, or determines to abandon or suspend, its research, development and marketing of the PRODUCTS IN CLASS and LICENSED METHODS, (b) fails to comply with its due diligence obligations under this Article for a period exceeding [**], or (c) abandons or suspends, or determines to abandon or suspend, its clinical research, development or marketing of a particular PRODUCT IN CLASS or a particular LICENSED METHOD.

7.5 LICENSEE shall during the TERM, commencing on completion of the SUCCESSFUL FINANCING, incur costs (including external costs and reasonably attributable internal costs) towards research, clinical development, regulatory approvals, manufacturing, intellectual property filings or maintenance fees, or sale or marketing of one or more PRODUCTS IN CLASS and/or LICENSED METHODS ("MINIMUM DIRECT COSTS") of at least $[**] per

calendar year (pro-rated for any partial calendar year). In determining the amount of such costs that LICENSEE has incurred, costs of LICENSEE shall be calculated on an accrual basis, consistent with the GAAP used in the preparation of LICENSEE's financial statements furnished to YALE pursuant to Section 9.3, and amounts paid by LICENSEE as RESEARCH SUPPORT of the RESEARCH PROGRAM and such documented costs incurred by SUBLICENSEES and/or AFFILIATES towards a PRODUCT IN CLASS or a LICENSED METHOD shall all be considered costs incurred by LICENSEE.

ARTICLE 8 CONFIDENTIALITY AND PUBLICITY

8.1 Subject to the parties' rights and obligations pursuant to this AGREEMENT, YALE and LICENSEE agree that during the TERM and for [**] thereafter, each of them:

(a) will keep confidential and will cause their AFFILIATES and, in the case of LICENSEE, require its SUBLICENSEES to agree in writing with LICENSEE, to keep confidential, CONFIDENTIAL INFORMATION disclosed to it by the other party, by taking whatever action the party receiving the CONFIDENTIAL INFORMATION would take to preserve the confidentiality of its own CONFIDENTIAL INFORMATION, which in no event shall be less than reasonable care; and

(b) will disclose only that part of the other's CONFIDENTIAL INFORMATION to its officers, employees or agents that is necessary for those officers, employees or agents who need to know to carry out its responsibilities under this AGREEMENT; and

(c) will not use the other party's CONFIDENTIAL INFORMATION other than as expressly set forth in this AGREEMENT or disclose the other's CONFIDENTIAL INFORMATION to any third parties under any circumstance without advance written permission from the other party; and

(d) will, within [**] of termination of this AGREEMENT, return all the CONFIDENTIAL INFORMATION disclosed to it by the other party pursuant to this AGREEMENT except for one copy which may be retained by the recipient for monitoring compliance with this Article 8.

8.2 The obligations of confidentiality described above shall not pertain to that part of the CONFIDENTIAL INFORMATION that:

(a) was known to the recipient prior to the disclosure by the disclosing party; or

(b) is at the time of disclosure or has become thereafter publicly known through no fault or omission attributable to the recipient; or

(c) is rightfully given to the recipient from sources independent of the disclosing party; or

(d) is independently developed by the receiving party without use of or reference to the CONFIDENTIAL INFORMATION of the other party; or

(e) is required to be disclosed by law in the opinion of recipient's attorney, but only after the disclosing party is given prompt written notice and an opportunity to seek a protective order; or

(f) is provided under the RESEARCH AGREEMENT (which CONFIDENTIAL INFORMATION shall be governed by the provisions of the RESEARCH AGREEMENT governing confidential information).

8.3 Except as required by law, neither party may disclose the financial terms of this AGREEMENT without the prior written consent of the other party, except that LICENSEE may disclose such terms to persons who agree in writing with LICENSEE to keep such information confidential.

ARTICLE 9 REPORTS, RECORDS AND INSPECTIONS

9.1 LICENSEE shall, within [**] after the calendar year in which NET SALES first occur, and within [**] after each calendar quarter (March 31, June 30, September 30 and December 31) thereafter, provide YALE with a written report detailing the NET SALES and uses, if any, made by LICENSEE, its SUBLICENSEES and AFFILIATES of LICENSED PRODUCTS and LICENSED METHODS during the preceding calendar quarter and calculating the payments due pursuant to Article 6. NET SALES of PRODUCTS IN CLASS or LICENSED METHODS shall be deemed to have occurred as determined in accordance with the GAAP used in the preparation of the financial statement furnished by LICENSEE to YALE pursuant to Section 9.3. Each such report, using the template provided in Exhibit 9.1 or containing materially the same information contained therein, shall be signed by an officer of LICENSEE (or the officer's designee), and must include:

(a) the number of PRODUCTS IN CLASS manufactured, sold, leased or otherwise transferred or disposed of, and the invoiced value of services performed and for which consideration was received using LICENSED METHODS, by LICENSEE, SUBLICENSEES and AFFILIATES;

(b) a calculation of NET SALES for the applicable reporting period in each country, including the gross invoice prices charged for the PRODUCTS IN CLASS and LICENSED METHODS and any permitted deductions made pursuant to Section 2.36;

(c) a calculation of total royalties or other payment due, including any exchange rates used for conversion; and

(d) names and addresses of all SUBLICENSEES and the type and amount of any SUBLICENSE INCOME received from each SUBLICENSEE.

(e) identification of any INVENTOR AGREEMENT(S) in effect during the previous calendar quarter; *provided, however,* that LICENSEE shall be required to identify only those INVENTOR AGREEMENTS to which a SUBLICENSEE is a party if LICENSEE has

actual, and not merely constructive, knowledge of the existence of such INVENTOR AGREEMENT with a SUBLICENSEE at the time it provides the particular report to YALE pursuant to this Section; LICENSEE shall require a SUBLICENSEE to report INVENTOR AGREEMENTS to LICENSEE.

9.2 LICENSEE and its SUBLICENSEES shall keep and maintain complete and accurate records and books containing an accurate accounting of all data in sufficient detail to enable verification of EARNED ROYALTIES and other payments under this AGREEMENT. LICENSEE shall preserve such books and records for [**] after the calendar year to which they pertain. Such books and records shall be open to inspection by YALE or an independent certified public accountant selected by YALE, at YALE's expense, during normal business hours upon [**] prior written notice, for the purpose of verifying the accuracy of the reports and computations rendered by LICENSEE. In the event LICENSEE underpaid the amounts due to YALE with respect to the audited period by more than [**] Percent ([**]%), LICENSEE shall pay the reasonable cost of such examination, together with the deficiency not previously paid, within [**] of receiving notice thereof from YALE.

9.3 LICENSEE shall deliver to YALE within [**] after the end of each fiscal year of LICENSEE during the TERM, an income statement for such fiscal year, a balance sheet of LICENSEE and statement of stockholders' equity as of the end of such fiscal year, and a statement of cash flows for such fiscal year, such financial statements to be prepared in accordance with generally accepted accounting principles ("GAAP"), and accompanied by an audit report of independent public accountants of nationally recognized standing selected by LICENSEE.

ARTICLE 10 PATENT PROTECTION

10.1 LICENSEE shall be responsible for all past, present, and future costs of filing, prosecution and maintenance of all United States patent applications contained in the LICENSED PATENTS which costs are not covered by the amount payable by LICENSEE under Section 5.1. Any and all such United States patent applications, and resulting issued patents, shall remain the property of YALE.

10.2 LICENSEE shall be responsible for all past, present, and future costs of filing, prosecution and maintenance of all foreign patent applications, and patents contained in the LICENSED PATENTS in the countries outside the United States in the LICENSED TERRITORY selected by YALE and agreed to by LICENSEE which costs are not covered by the amount payable by LICENSEE under Section 5.1. All such applications or patents shall remain the property of YALE. LICENSEE acknowledges that YALE shall not be required to file any such applications in low or lower-middle income countries, as designated by the World Bank (www.worldbank.org).

10.3 If LICENSEE does not agree to pay the expenses of filing, prosecuting or maintaining a patent application or patent in any country outside the United States, or fails to pay the expenses of filing, prosecuting or maintaining a patent application or patent in the United States, then the LICENSE with respect to such patent application or patent shall terminate automatically with respect to that country. YALE reserves the right to require LICENSEE to pay patent expenses in advance, based upon good-faith estimates from YALE's patent counsel.

10.4 The costs mentioned in Sections 10.2 and 10.3 shall include, but are not limited to, any future taxes, annuities, working fees, maintenance fees, renewal and extension charges. Payment of such costs shall be made, at YALE's option, either directly to patent counsel or by reimbursement to YALE. In either case, LICENSEE shall make payment directly to the appropriate party within [**] of receiving its invoice. If LICENSEE fails to make payment to YALE or patent counsel, as appropriate, within the [**] period, LICENSEE shall be charged a [**] Percent ([**]%) surcharge plus interest of [**] Percent ([**]%) per month or fraction thereof on the invoiced amount per month or fraction thereof or such other amount (higher or lower) as may be charged by patent counsel. The payment of such interest shall not foreclose YALE from exercising any other right it may have as a consequence of the failure of LICENSEE to make any payment whatsoever when due. YALE shall be entitled to recover reasonable attorneys' fees and costs related to the administration or enforcement of this AGREEMENT following such failure to pay. Failure of LICENSEE to pay the surcharge or interest shall be grounds for termination by YALE under Section 13.1 as and to the extent the same constitutes a TERMINATION EVENT.

10.5 All patent applications under the LICENSED PATENTS shall be prepared, prosecuted, filed and maintained by independent patent counsel chosen by YALE and reasonably acceptable to LICENSEE. Said independent patent counsel shall be ultimately responsible to YALE. LICENSEE shall have the right to retain, at its own expense, separate patent counsel to advise LICENSEE regarding such patent matters. YALE shall instruct its patent counsel to keep YALE, LICENSEE and LICENSEE's patent counsel, if any, fully informed of the progress of all patent applications and patents, and to give both YALE and LICENSEE reasonable opportunity to comment on the type and scope of useful claims and the nature of supporting disclosures and other matters in the course of patent prosecution and maintenance. YALE will not finally abandon any patent application for which LICENSEE is bearing expenses without LICENSEE's consent. [**] YALE shall [**] LICENSEE's [**] under this AGREEMENT [**] LICENSEE's [**]. YALE shall have no liability to LICENSEE for damages, whether direct, indirect or incidental, consequential or otherwise, allegedly arising from its good faith decisions, actions and omissions taken in compliance with this AGREEMENT in connection with such patent prosecution.

10.6 LICENSEE shall mark, and shall require SUBLICENSEES and AFFILIATES to mark, all LICENSED PRODUCTS with the numbers of all patents included in LICENSED PATENTS that cover the PRODUCTS IN CLASS. Without limiting the foregoing, all PRODUCTS IN CLASS shall be marked in such a manner as to conform with the patent marking notices required by the law of any country where such PRODUCTS IN CLASS are made, sold, used or shipped, including, but not limited to, the applicable patent laws of that country.

ARTICLE 11 INFRINGEMENT AND LITIGATION

11.1 Each party shall promptly notify the other in writing in the event that it obtains knowledge of infringing activity by third parties, or is sued or threatened with an infringement suit, in any country in the LICENSED TERRITORY as a result of activities that concern the ENPP TECHNOLOGY and shall supply the other party with documentation of the infringing activities that it possesses.

11.2 During the TERM:

(a) LICENSEE shall have the first right and obligation to (i) defend its or its SUBLICENSEE's use of the ENPP TECHNOLOGY against infringement or interference claims in the LICENSED TERRITORY by third parties and (ii) take action (including legal action) against third parties who may infringe the LICENSED PATENTS or otherwise misappropriate the LICENSED KNOW-HOW, LICENSED METHODS or LICENSED MATERIALS. This right and obligation includes bringing any legal action for infringement and defending any counter claim of invalidity or action of a THIRD PARTY for declaratory judgment for noninfringement or non-interference. If, in the reasonable opinion of both LICENSEE's and YALE's respective counsel, YALE is required to be a named party to any such suit for standing purposes, LICENSEE may join YALE as a party; provided, however, that (i) YALE shall not be the first named party in any such action, (ii) the pleadings and any public statements about the action shall state that the action is being pursued by LICENSEE and that LICENSEE has joined YALE as a party; and (iii) LICENSEE shall keep YALE reasonably apprised of all developments in any such action. LICENSEE may settle such suits solely in its own name and solely at its own expense and through counsel of its own selection; provided, however, that no settlement shall be entered without YALE's prior written consent. LICENSEE shall bear the expense of such legal actions. Except for providing reasonable assistance, at the request and expense of LICENSEE, YALE shall have no obligation regarding the legal actions described in this Section unless required to participate by law. However, YALE shall have the right to participate in any such action through its own counsel and at its own expense. Any recovery shall first be applied to LICENSEE's out-of-pocket expenses and second shall be applied to YALE's out-of-pocket expenses, including legal fees. Thereafter, any remaining amount of such recovery by LICENSEE up to the amount of compensatory damages recovered by LICENSEE shall be retained by LICENSEE, but if related to a PRODUCT IN CLASS or LICENSED METHOD shall be deemed, to the extent so related, NET SALES of a PRODUCT IN CLASS or LICENSED METHOD, as the case may be, during the calendar quarter in which such recovery is actually paid to LICENSEE, and shall be subject to payment by LICENSEE of an EARNED ROYALTY thereon pursuant to Section 6.1. LICENSEE shall pay YALE [**] Percent ([**]%) of the amount, if any, of any such recovery by LICENSEE related to a PRODUCT IN CLASS or LICENSED METHOD which amount is in excess of (i) LICENSEE's and YALE's out-of-pocket expenses as aforesaid and (ii) the amount of such compensatory damages as aforesaid. LICENSEE shall make such payment to YALE within [**] after the end of the calendar quarter in which LICENSEE actually receives the amount giving rise to such payment to YALE.

(b) Promptly after LICENSEE (a) receives notification from YALE of infringement by a THIRD PARTY or (b) otherwise first becomes aware of an infringement by a THIRD PARTY, whichever is earlier, LICENSEE shall investigate such infringement and take other steps, including, without limitation, contacting the person believed to be infringing, to determine the nature and extent of any such infringement and, if LICENSEE determines that such infringement is occurring, notify such infringing person to cease. If such infringement shall nonetheless continue, then LICENSEE shall proceed in a timely manner in accordance with Section 11.2(a). If LICENSEE fails to initiate such actions to investigate and determine the nature and extent of such infringement within [**] after the earlier of such notice from YALE or the date LICENSEE first becomes aware of such infringement or if LICENSEE fails to commence a legal action under Section 11.2(a) in a timely manner, as the case may be, then YALE may by notice to

LICENSEE demand that LICENSEE take such actions or commence such legal action. If LICENSEE shall fail to take such action or commence such legal action, as the case may be, within [**] after such demand by YALE, then YALE shall have the right to take such action or to initiate such legal action, as the case may be, at its own expense. If YALE initiates such legal action YALE may use the name of LICENSEE as party plaintiff to uphold the LICENSED PATENTS. In such case, LICENSEE shall provide reasonable assistance to YALE if requested to do so. YALE may settle such actions solely through its own counsel, including though the granting of a license to the ENPP TECHNOLOGY to the infringing THIRD PARTY. Any recovery shall be retained by YALE. In case YALE initiates such legal action in accordance with this Section 11.2(b), then YALE may terminate the LICENSE in the country where such legal action is taken.

11.3 In the event LICENSEE is permanently enjoined from exercising its LICENSE under this AGREEMENT pursuant to an infringement action brought by a THIRD PARTY, or if both LICENSEE and YALE elect not to undertake the defense or settlement of a suit alleging infringement for a period of [**] from notice of such suit, then either party shall have the right to terminate the LICENSE in the country where the suit was filed with respect to the allegedly infringing LICENSED PATENT following [**] written notice to the other party in accordance with the terms of Article 15.

11.4 If LICENSEE, AFFILIATE, and/or SUBLICENSEE challenge a VALID CLAIM of a LICENSED PATENT or challenge a claim by YALE that a product is a PRODUCT IN CLASS (each a "CHALLENGE"), then LICENSEE, AFFILIATE, and/or SUBLICENSEE shall pay or continue to pay all amounts due under this AGREEMENT during the pendency of such CHALLENGE, whether or not any of such amounts is in dispute in such CHALLENGE. In the event YALE should prevail in such a CHALLENGE, then all payments due to YALE shall be tripled.

11.5 Notwithstanding the foregoing in this Article 11, neither LICENSEE nor YALE shall take any action to enforce the LICENSED PATENTS, or patent rights owned by YALE and which claim the PRODUCTS IN CLASS, in low or lower-middle income countries, where such action is intended to prevent the sale of PRODUCTS IN CLASS in any such countries. However, LICENSEE and/or YALE may take such action in any such country, provided that such action is intended to prevent the manufacturing of PRODUCTS IN CLASS for export to countries that are not low-income or lower-middle countries.

ARTICLE 12 USE OF YALE'S NAME

LICENSEE shall not use the name "Yale" or "Yale University," nor any variation or adaptation thereof, nor any trademark, trade name or other designation owned by YALE, nor the names of any of its trustees, officers, faculty, students, employees or agents, for any purpose without the prior written consent of YALE in each instance, except (a) that LICENSEE may disclose the terms of this AGREEMENT, the activities of the parties hereunder, and the ENPP TECHNOLOGY to its stockholders, potential investors and consultants who are subject to obligations to LICENSEE to keep such information confidential, where such confidentiality obligations are substantially similar to the obligations of LICENSEE to YALE hereunder and (b) as required by applicable law.

ARTICLE 13 TERMINATION

13.1 YALE shall have the right to terminate the LICENSE upon written notice to LICENSEE in the event a TERMINATION EVENT shall have occurred and be continuing; provided, however, that any termination by reason of a TERMINATION EVENT (other than a TERMINATION EVENT described in Section 2.57(a)) shall be made in accordance with Section 13.4.

13.2 The LICENSE shall terminate automatically without any notice to LICENSEE in the event LICENSEE shall cease to carry on its business for a period of [**] or becomes INSOLVENT, or a petition in bankruptcy is filed against LICENSEE and is consented to, acquiesced in or remains undismissed for [**], or LICENSEE makes a general assignment for the benefit of creditors, or a receiver is appointed for LICENSEE.

13.3 LICENSEE shall have the right to terminate the LICENSE upon written notice to YALE:

(a) at any time on six (6) months' notice to YALE, provided LICENSEE is not in breach of the AGREEMENT in any material respect and upon payment of all amounts due YALE through the effective date of termination; or

(b) in the event YALE commits a material breach of any of the provisions of this AGREEMENT and such breach is not cured (if capable of being cured) within the [**] period after receipt of written notice thereof from LICENSEE which notice shall identify such breach in reasonable detail, or upon receipt of such notice if such breach is not capable of being cured.

13.4 Subject to Section 13.1, if YALE believes that a TERMINATION EVENT (other than a TERMINATION EVENT described in Section 2.57 (a)) shall have occurred and be continuing, then such matter shall be resolved in accordance with this Section 13.4.

(a) If YALE believes such a TERMINATION EVENT shall have occurred and [**], then YALE may so [**] LICENSEE [**] YALE [**] YALE [**]. LICENSEE shall [**] YALE [**] LICENSEE [**].

(b) If [**], YALE [**] YALE [**] under Section 13.4(a), then [**] YALE may [**] LICENSEE [**] YALE [**] LICENSEE [**], LICENSEE [**] YALE [**] LICENSEE [**].

(c) YALE shall [**] YALE [**] YALE [**] LICENSEE's [**] YALE, [**] LICENSEE's [**] LICENSEE's [**] LICENSEE [**]. If YALE [**].

(d) Within [**] after LICENSEE [**] YALE and LICENSEE shall [**]. If, after [**], then the [**], and the [**] LICENSEE shall [**].

(e) Either party shall have the right to seek declaratory relief relating to this AGREEMENT in a court of competent jurisdiction.

13.5 Upon termination of the LICENSE, for any reason, all rights and licenses granted to LICENSEE under the terms of this AGREEMENT shall terminate. In case of any termination

of the LICENSE, each sublicense that LICENSEE shall have entered into in compliance with this AGREEMENT shall become a direct license by YALE to the applicable SUBLICENSEE, so long as at the time of such termination of the LICENSE such SUBLICENSEE shall be in compliance in all material respects with the terms of its sublicense; *provided, however* that (1) YALE shall not be liable for any breach or default under such sublicense by LICENSEE and (2) in no event shall YALE have any obligation or liability under such sublicense that it did not have to LICENSEE under this AGREEMENT prior to termination of the LICENSE. Upon such termination, LICENSEE shall cease to manufacture or sell PRODUCTS IN CLASS and cease to practice LICENSED METHODS, except that (1) LICENSEE may complete the manufacture of quantities of PRODUCTS IN CLASS which were work-in-process on the date of such termination and (2) LICENSEE may, for up to [**] after the date of such termination, sell any inventory of PRODUCTS IN CLASS that existed on the date of such termination or which were completed as permitted by the immediately preceding clause (1). Within [**] of the effective date of termination LICENSEE shall:

(a) Return to YALE all materials relating to or containing the LICENSED PATENTS, LICENSED METHODS or CONFIDENTIAL INFORMATION disclosed by YALE; *provided, however*, that LICENSEE may retain a single file copy thereof in its records;

(b) Provide to YALE the last report required under Section 9.1; and

(c) Make all payments arising under this AGREEMENT up to the effective date of termination.

13.6 Termination of the LICENSE shall not affect any rights or obligations accrued prior to the effective date of such termination and specifically LICENSEE's obligation to pay all royalties and other payments specified by Article 5 and 6 for NET SALES to the date of termination. The parties agree that claims giving rise to indemnification may arise after the TERM or termination of the LICENSE granted herein.

13.7 The rights provided in this Article 13 shall be in addition and without prejudice to any other rights which the parties may have with respect to any default or breach of the provisions of this AGREEMENT.

13.8 Waiver by either party of one or more defaults or breaches shall not deprive such party of the right to terminate because of any subsequent default or breach.

13.9 Upon termination of the LICENSE for any reason other than breach by YALE, the ENPP TECHNOLOGY that may no longer be practiced because of such termination of the LICENSE or termination of the LICENSE with respect to a particular PRODUCT IN CLASS or LICENSED METHOD that LICENSEE has chosen to abandon, as the case may be, shall be an "ABANDONED TECHNOLOGY". LICENSEE shall permit YALE and its future licensees of the ABANDONED TECHNOLOGY to utilize, reference and otherwise have the benefit of all regulatory approvals of, or clinical trials or other studies conducted by or on behalf of LICENSEE on, and all filings made by or on behalf of LICENSEE with regulatory agencies with respect to, ABANDONED TECHNOLOGY, subject to the rights of THIRD PARTIES. In addition, at YALE's request and subject to Section 13.5 and any rights of THIRD PARTIES, LICENSEE shall,

at YALE's sole cost and expense for copying expenses associated with the following in this Section 13.9 deliver to YALE copies of records held by or on behalf of LICENSEE that are required by regulatory authorities to be maintained with respect to the sale, storage, handling, shipping and use of the ABANDONED TECHNOLOGY, copies of all reimbursement approval files held by LICENSEE, and copies of all documents, data and information held by or on behalf of LICENSEE that are related to clinical trials and other studies by or on behalf of LICENSEE of ABANDONED TECHNOLOGIES, all of which are collectively the "RETURNED MATERIALS". YALE agrees that, subject to the provisions of Article 8, LICENSEE may retain one copy of the RETURNED MATERIALS to the extent LICENSEE is required by law to maintain such copy. If LICENSEE [**] YALE [**] within [**], YALE shall [**] LICENSEE [**]. YALE [**] LICENSEE within [**] after YALE [**].

13.10 Upon expiration of the TERM LICENSEE shall have a non-exclusive, fully paid- up, perpetual license to LICENSED KNOW-HOW to make, have made, use, sell, have sold, import or export any ENPP PRODUCT in the LICENSED TERRITORY.

ARTICLE 14 INDEMNIFICATION; INSURANCE; NO WARRANTIES

14.1 LICENSEE shall defend, indemnify and hold harmless YALE, its trustees, directors, officers, employees, and agents and their respective successors, heirs and permitted assigns (the "INDEMNIFIED PERSONS") against any and all liabilities, claims, demands, obligations, damages, judgments, losses and expenses of any nature, including, without limitation, reasonable legal expenses and attorneys' fees (collectively "CLAIMS"), based upon, arising out of or otherwise relating to this AGREEMENT, including without limitation (1) arising out of any theory of liability (including, without limitation, tort, warranty, or strict liability) or the death, personal injury, or illness of any person or out of damage to any property related in any way to the rights granted under this AGREEMENT; or (2) resulting from the production, manufacture, sale, use, lease, or other disposition or consumption or advertisement of the PRODUCTS IN CLASS or LICENSED METHODS by LICENSEE, its AFFILIATES, SUBLICENSEES or any other transferees; or (3) in connection with any statement, representation or warranty of LICENSEE, its AFFILIATES, SUBLICENSEES or any other transferees with respect to the LICENSED PRODUCTS or LICENSED METHODS. Each INDEMNIFIED PERSON shall notify LICENSEE promptly after such INDEMNIFIED PERSON learns of a CLAIM or threatened CLAIM for which indemnity may be sought under this Section 14.1. The LICENSEE shall have the right to assume the defense of any legal action for which indemnity may be sought under this Section 14.1. LICENSEE shall not be responsible for indemnity with regard to any CLAIM that is settled without LICENSEE's prior written consent and LICENSEE shall not settle or compromise any CLAIM without the prior written consent of YALE, such consent not to be unreasonably withheld. Without limiting the foregoing, YALE may withhold its consent to any settlement or compromise that would in any manner constitute or incorporate an admission by YALE, require YALE to take or refrain from taking any action, or not include an unconditional release of all YALE Indemnitees from all liability for claims that are the subject matter of the settled CLAIM.

14.2 LICENSEE shall purchase and maintain in effect and shall require its SUBLICENSEES to purchase and maintain in effect a policy of commercial, general liability insurance to protect YALE with respect to events described in Section 14.1. Such insurance shall:

(a) list "YALE, its trustees, directors, officers, employees and agents" as additional insureds under the policy;

(b) provide that such policy is primary and not excess or contributory with regard to other insurance YALE may have;

(c) be endorsed to include product liability coverage in amounts no less than [**] Dollars ($[**]) per incident and [**] Dollars ($[**]) annual aggregate; and

(d) be endorsed to include contractual liability coverage for LICENSEE's indemnification under Section 14.1; and

(e) by virtue of the minimum amount of insurance coverage required under Section 14.2(c), not be construed to create a limit of LICENSEE's liability with respect to its indemnification under Section 14.1.

14.3 By signing this AGREEMENT, LICENSEE certifies that the requirements of Section 14.2 will be met on or before the earlier of (a) the date of FIRST SALE of any PRODUCT IN CLASS or LICENSED METHOD or (b) the date any PRODUCT IN CLASS, or LICENSED METHOD is tested or used on humans, and will continue to be met thereafter. Upon YALE's request, LICENSEE shall furnish a Certificate of Insurance and a copy of the current Insurance Policy to YALE. LICENSEE shall give [**] written notice to YALE prior to any cancellation of or material change to the policy.

14.4. (a) YALE MAKES NO, AND EXPRESSLY DISCLAIMS ALL, REPRESENTATIONS OR WARRANTIES THAT ANY CLAIMS OF THE LICENSED PATENTS, ISSUED OR PENDING, ARE VALID, OR THAT THE MANUFACTURE, USE, SALE OR OTHER DISPOSAL OF THE PRODUCTS IN CLASS, OR PRACTICE OF THE LICENSED METHODS, DOES NOT OR WILL NOT INFRINGE UPON ANY PATENT OR OTHER RIGHTS NOT VESTED IN YALE.

(b) EXCEPT AS OTHERWISE SPECIFICALLY PROVIDED IN SECTION 1.2 OF THIS AGREEMENT, YALE MAKES NO, AND EXPRESSLY DISCLAIMS ALL, REPRESENTATIONS AND WARRANTIES WHATSOEVER WITH RESPECT TO THE LICENSED PATENTS, PRODUCTS IN CLASS AND LICENSED METHODS, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LICENSEE SHALL MAKE NO STATEMENTS, REPRESENTATION OR WARRANTIES WHATSOEVER TO ANY THIRD PARTIES WHICH ARE INCONSISTENT WITH SUCH DISCLAIMER BY YALE. IN NO EVENT SHALL YALE, OR ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES, BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER YALE SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING. IN NO EVENT SHALL YALE, OR ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES, BE LIABLE FOR DAMAGES IN EXCESS OF AMOUNTS YALE HAS RECEIVED FROM LICENSEE UNDER THIS LICENSE.

ARTICLE 15 NOTICES, PAYMENTS

15.1 Any payment, notice or other communication required by this AGREEMENT (a) shall be in writing, (b) may be delivered personally or sent by reputable overnight courier with written verification of receipt or by registered or certified first class United States Mail, postage prepaid, return receipt requested, (c) shall be sent to the following addresses or to such other address as such party shall designate by written notice to the other party, and (d) shall be effective upon receipt:

FOR YALE:
Managing Director
YALE UNIVERSITY
Office of Cooperative Research
433 Temple Street
New Haven, Connecticut 06511

FOR LICENSEE:
Chief Executive Officer
Inozyme Pharma, LLC
[**]

With a copy to:
[**]

ARTICLE 16 LAWS, FORUM AND REGULATIONS, & INVENTOR AGREEMENTS

16.1 Any matter arising out of or related to this AGREEMENT shall be governed by and in accordance with the substantive laws of the State of Connecticut, without regard to its conflicts of law principles, except where the federal laws of the United States are applicable and have precedence. Any dispute arising out of or related to this AGREEMENT shall be brought in a court of competent jurisdiction in the State of Connecticut, and the parties hereby irrevocably submit to the jurisdiction of such courts.

16.2 LICENSEE shall comply, and shall cause its AFFILIATES to comply and require its SUBLICENSEES to comply, with all foreign and United States federal, state, and local laws, regulations, rules and orders applicable to the testing, production, transportation, packaging, labeling, export, sale and use of the PRODUCTS IN CLASS and practice of the LICENSED METHODS. In particular, LICENSEE shall be responsible for assuring compliance with all United States export laws and regulations applicable to this LICENSE and LICENSEE's activities under this AGREEMENT.

16.3 If LICENSEE, or AFFILIATE enters into an INVENTOR AGREEMENT with BRADDOCK or any other person who, at the time LICENSEE enters into such agreement, LICENSEE has actual knowledge is an employee or student of YALE, LICENSEE shall so notify YALE in writing within [**], subject to any requirements of applicable law. LICENSEE acknowledges that: (i) BRADDOCK is a YALE faculty member, and others who enter into an INVENTOR AGREEMENT are YALE employees or students (as the case may be); (ii) employees and students of YALE are subject to certain policies of YALE, as such policies may be revised from time to time, including policies concerning consulting, conflicts of interest, and intellectual property (e.g., Yale University Patent Policy (http://ocr.yale.edu/faculty/policies/yale-university-

patent-policy and http://ocr.yale.edu/students/patent-policy-students) and the policies of the Yale Faculty Handbook (http://provost.yale.edu/faculty-handbook)) ("YALE POLICIES"); (iii) to the extent any provision of an INVENTOR AGREEMENT conflicts with YALE POLICIES existing as of the effective date of such INVENTOR AGREEMENT, or imposes obligations or responsibilities that would require the employee of YALE to act in violation of such YALE POLICIES, to the extent permitted by applicable law such provision shall be void. BRADDOCK and any person who is a YALE employee or student and a party to an INVENTOR AGREEMENT is a THIRD PARTY beneficiary of this Section 16.3. [**].

ARTICLE 17 MISCELLANEOUS

17.1 This AGREEMENT shall be binding upon and inure to the benefit of the parties and their respective legal representatives, successors and permitted assigns.

17.2 This AGREEMENT constitutes the entire agreement of the parties relating to the LICENSED PATENTS, PRODUCTS IN CLASS and LICENSED METHODS, and all prior representations, agreements and understandings, written or oral, are merged into it and are superseded by this AGREEMENT; *provided, however,* that any obligations to either party accrued by the other party prior to the EFFECTIVE DATE of this AGREEMENT shall remain as such.

17.3 The provisions of this AGREEMENT shall be deemed separable. If any part of this AGREEMENT is rendered void, invalid, or unenforceable, such determination shall not affect the validity or enforceability of the remainder of this AGREEMENT unless the part or parts which are void, invalid or unenforceable shall substantially impair the value of the entire AGREEMENT as to either party.

17.4 Articles, paragraph and section headings are inserted for convenience of reference only and do not form a part of this AGREEMENT.

17.5 No person not a party to this AGREEMENT, including any employee of any party to this AGREEMENT, shall have or acquire any rights by reason of this AGREEMENT. Nothing contained in this AGREEMENT shall be deemed to constitute the parties partners with each other or any THIRD PARTY, and neither party shall be deemed to be the agent of the other.

17.6 This AGREEMENT may not be amended or modified except by written agreement executed by each of the parties.

17.7 This Agreement is personal to LICENSEE and shall not be assigned by LICENSEE without the prior written consent of YALE; *provided, however*, that no such consent of YALE shall be required [**]; *provided further, however*, that in case of any [**] of this Section 17.7 [**] of this Agreement.

17.8 LICENSEE, or any SUBLICENSEE or assignee, will not create, assume or permit to exist any lien, pledge, security interest or other encumbrance on this AGREEMENT or any sublicense, and any attempt to create, assume or permit such an encumbrance shall be void.

17.9 The failure of any party hereto to enforce at any time, or for any period of time, any provision of this AGREEMENT shall not be construed as a waiver of either such provision or of the right of such party thereafter to enforce each and every provision of this AGREEMENT.

17.10 This AGREEMENT may be executed in any number of counterparts and any party may execute any such counterpart, each of which when executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument.

17.11 Neither YALE nor LICENSEE shall be liable to perform its obligations as required by this AGREEMENT, or shall be in default of its obligations under this AGREEMENT, to the extent such failure to perform or default is caused by any reason beyond such party's control, including, without limitation, any of the following: labor disturbances or disputes of any kind, accidents, , civil disorders, acts of aggression, acts of God, energy or other conservation measures, failure of utilities, delays or defaults by common carrier, mechanical breakdowns, material shortages, disease, or similar occurrences. In case of any such reason beyond a party's control, the time for performance of such party's obligations affected thereby shall be extended by the period of the event or circumstance constituting such reason and for a reasonable period of time thereafter.

[*signature page follows*]

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IN WITNESS to their agreement, the parties have caused this AGREEMENT to be executed in duplicate originals by their duly authorized representations.

YALE UNIVERSITY

By: */s/ E. Jonathan Soderstrom*
E. Jonathan Soderstrom, Ph.D.
Managing Director
Office of Cooperative Research

Date: December 31 2016

INOZYME PHARMA, LLC

By: */s/ Axel Bolte*
Axel Bolte
Chief Executive Officer

Date: December 31 2016

AMENDMENT NO. 1 TO EXCLUSIVE LICENSE AGREEMENT

BETWEEN:

YALE UNIVERSITY, a corporation organized and existing under and by virtue of a charter granted by the general assembly of the Colony and State of Connecticut with a place of business located at 433 Temple Street, New Haven, Connecticut, 06511, United States of America ("**YALE**").

AND:

INOZYME PHARMA, INC., a Delaware corporation, having its principal offices at 321 Summer Street, Boston, Massachusetts 02210 (the "**LICENSEE**").

WHEREAS, LICENSEE and YALE have entered into an Exclusive License Agreement between the Parties dated January 6th, 2017 (the "**LICENSE**").

ACCORDINGLY, LICENSEE and YALE hereby agree to amend the LICENSE by this first amendment to the LICENSE ("**AMENDMENT NO. 1**") as follows:

Section I: Effective Date

1. This AMENDMENT NO. 1 is effective as of the last signature date (the "**AMENDMENT NO. 1 EFFECTIVE DATE**").

Section II: Amendment under AMENDMENT NO. 1

1. Section 2.57(f)(iii) of the LICENSE is hereby amended and restated in its entirety to read as follows:

"(iii) file an IND for a PRODUCT IN CLASS with the FDA on or before December 31, 2020;"

2. All other terms and conditions of the LICENSE remain in full force and effect.

SIGNATURE PAGE

IN WITNESS WHEREOF, LICENSEE and YALE have by their duly authorized representatives executed and delivered this AMENDMENT NO. 1 effective as of the AMENDMENT NO. 1 EFFECTIVE DATE.

YALE	**Inozyme Pharma, Inc.**
By: /s/ E. Jonathan Soderstrom	By: /s/ Axel Bolte
E. Jonathan Soderstrom, PhD	Axel Bolte
Managing Director, OCR	Title: CEO
Date: 2 May 2020	Date: May 2, 2020

Exhibit 10.11

Certain identified information has been marked in the exhibit because it is both (i) not material and (ii) would likely cause competitive harm to the Company, if publicly disclosed. Double asterisks denote omissions.

INOZYME PHARMA, INC. CONFIDENTIAL

YALE UNIVERSITY

CORPORATE SPONSORED RESEARCH AGREEMENT

This RESEARCH AGREEMENT (this "**Agreement**") is entered into as of January 6, 2017 (the "**Effective Date**"), by and between **Yale University**, a non-profit corporation organized and existing under and by virtue of a special charter granted by the General Assembly of the Colony and State of Connecticut (the "**University**"), and **Inozyme Pharma, LLC**, a Delaware limited liability company, having its principal offices at [**] (the "**Sponsor**").

W I T N E S S E T H :

WHEREAS, in pursuit of its educational purposes, which include research and training, the University undertakes scholarly, research, and experimental activities in a variety of academic disciplines including the biology of the modulation of inorganic pyrophosphate and calcification by ectonucleotide pyrophosphatase/phosphodiesterases ("**ENPPs**"); and

WHEREAS, the Sponsor wishes to fund and desires that the University undertake a research program in the field of ENPPs, as described more fully in Exhibit A, attached hereto; and

WHEREAS, in furtherance of its scholarly, research, and instructional interests, the University is willing to undertake such research upon the terms and conditions set forth below; and

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto agree as follows:

1. Scope of Research. During the term of this Agreement, the University shall use reasonable efforts to perform the research program described in Exhibit A, attached hereto and incorporated herein (the "**Research**") using the levels of diligence, care and skill applicable to academic research typically conducted at the University. Notwithstanding the foregoing, the University makes no warranties or representations regarding its ability to achieve, nor shall it be bound hereby to accomplish, any particular research objective or results.

2. Personnel.

(a) The Research shall be performed by and under the supervision and direction of Dr. Demetrios Braddock, while employed by the University, who shall be designated the Principal Investigator (the "**Principal Investigator**") together with such additional personnel as may be assigned by the University and who are employees or agents of the University. If Dr. Braddock ceases to be available to act as Principal Investigator, the University shall give Sponsor written notice of any proposed change in the Principal Investigator, subject to Sponsor's approval, which the Sponsor may withhold in its sole discretion. In case a replacement Principal Investigator cannot be found who is acceptable to the University and the Sponsor, then the Sponsor may terminate the Term (as defined herein) on 30 days' notice to the University.

(b) It is understood that the University and the personnel performing the Research hereunder may be involved in other activities and projects which entail pre-existing commitments to other sponsors. The University will use reasonable efforts to avoid conflicts with the terms of this Agreement; however, it is agreed that unless provided to the contrary herein, this Agreement is subject to the University's pre-existing commitments to such other sponsors. [**].

3. University Policies and Procedures. All Research conducted hereunder shall be performed in accordance with established University policies and procedures, including, but not limited to, policies and procedures applicable to research involving human subjects, laboratory animals, and conflicts of interest.

4. Reimbursement of Costs.

(a) The Sponsor shall reimburse the University for all direct and indirect costs incurred by the University in connection with the Research, in accordance with the budget set forth as Exhibit B, in the amount of [**] Dollars ($[**]), attached hereto and which hereby is incorporated herein; provided, however, that the University may submit to Sponsor at any time, and Sponsor may at its discretion approve in writing, a revised budget or budgets requesting additional funds. Indirect costs shall be equal to the facilities and administration rate for indirect costs negotiated between the University and the Federal Government.

(b) The Sponsor shall make quarterly advance payments to the University to fund estimated reimbursable costs, as determined in advance by Yale in good faith, it being understood that Yale's estimate is not a guarantee of actual reimbursable costs for the applicable quarter. All checks shall be made payable to Yale University, shall include reference to the Principal Investigator, and shall be sent to:

Yale University
Office of Sponsored Projects
P.O. Box 1873
New Haven, CT 06508-1873
Contacting email: [**]

Or wired to:

[**]

Reference: Demetrios Braddock, Principal Investigator; [**]

5. Research Reports. The University shall furnish to Sponsor during the term of this Agreement periodic informal reports regarding the progress of the Research. A final report setting forth the significant research findings shall be prepared by the University and submitted to Sponsor within a reasonable period following the expiration of the Term or the effective date of early termination. The University shall hold such reports in confidence subject to its rights under Section 6. The Sponsor shall hold such reports in confidence pursuant to Section 7.

6. Publication.

(a) Part of the University's mission is to publish and disseminate research results developed under sponsored research projects. Consistent with this Agreement, University, the Principal Investigator and other University employees and/or students may disseminate or publish the results of the Research without prior approval by the Sponsor. The University shall provide the Sponsor with a copy of any proposed publication 45 days in advance of submission to third parties. The Sponsor shall determine whether any of its Confidential Information is included in the proposed publication. The Sponsor may reasonably require that any of its Confidential Information be removed from the proposed publication. The Sponsor may reasonably require that submission of the proposed publication to third parties and publication be W I delayed to permit the filing of patent applications. The Sponsor shall make such determinations within forty-five (45) days of receipt of the proposed publication. Submission of the proposed publication shall not be delayed more than ninety (90) days after receipt of the proposed publication by the Sponsor. The Sponsor at its election shall be entitled to receive an acknowledgment of its sponsorship of the Research in any such publication.

(b) The University shall have the final authority to determine the scope and content of any publications or presentations made by its students and employees in accordance with the limitations of this section.

7. Confidential Information.

(a) Confidential Information consists of information that has been reduced to writing and marked "Confidential," or, if disclosed orally, has been reduced to writing and marked "Confidential" within [**] of oral disclosure. Subject to the following exceptions, all Confidential Information of either party disclosed by or on behalf of it to the other party in connection with the Research hereunder will be treated by such other party as confidential throughout the term hereof or for [**] from the time of disclosure, whichever is longer. Each party will use reasonable efforts to safeguard the confidentiality of the other Party's Confidential Information, and will require its employees, agents, students and associates to adhere to such obligation of confidentiality. The following shall be exceptions to confidentiality:

(i) Information that is now in the public domain or subsequently enters the public domain through no fault of the receiving party;

(ii) Information that is presently known or becomes known to the receiving party from its own independent sources;

(iii) Information that the receiving party receives from any third party not under any obligation to keep such information confidential;

(iv) Information that is required to be disclosed by law.

(v) Information that is developed independently by persons who had no direct or indirect access to the information.

Neither party will use any Confidential Information of the other party provided under this Agreement for any purpose other than carrying out the Research and performing the parties' respective obligations under this Agreement.

(b) Neither party shall knowingly convey Confidential Information that is subject to federal export control restrictions under the EAR or the ITAR without first so disclosing to the other party and providing the other party the opportunity to decline receiving such information.

(c) Notwithstanding the foregoing in this Article 7, the Sponsor may disclose or release the results of the Research in connection with obtaining necessary regulatory approvals by a governmental authority for any ENPP product or ENPP product candidate of the Sponsor that is the subject of any license agreement between the University and the Sponsor pertaining, in part or in whole to such ENPP products or ENPP product candidates (a "**Regulatory Disclosure**") to the extent that such Regulatory Disclosure is necessary or appropriate in the Sponsor's judgment to obtain such approvals [**].

(d) [**] under this Section 7.

8. Intellectual Property.

(a) **Definition of Invention.** "**Invention**" shall mean any discovery, concept or idea, whether or not patentable, first conceived, discovered or first reduced to practice in whole or in part in performance of this Agreement. For purposes of this Agreement, "Invention" shall also include any software written, created, and utilized in performance of this Agreement.

(b) **Ownership of Inventions.** The University shall be entitled to ownership of any Invention first conceived or discovered solely by its employees, students, or agents in the performance of the Research ("**University Inventions**"). Sponsor shall own any Inventions first conceived or discovered solely by Sponsor's employees or agents ("**Sponsor Inventions**"). Inventions first conceived or discovered jointly by University employees, students or agents and Sponsor employees or agents in the performance of the Research shall be owned jointly ("**Joint Inventions**").

(c) **Disclosure and Right to Patent Inventions.** The University and Sponsor shall promptly disclose to each other in writing any Invention first conceived or discovered in the performance of the Research [**], and reported to the University's Office of Co-operative Research ("OCR") if a University Invention or Joint Invention or Sponsor's Intellectual Property Authority ("**IPA**") if the Invention is a Joint Invention (see Article 11 "Notices"), respectively. Such disclosure shall be considered Confidential Information. The University may elect to file and prosecute a patent application on any University Invention described in any such Invention disclosure. Should the University elect not to do so it will so notify the Sponsor and the Sponsor may at its own cost file and prosecute any such patent application on behalf of the University. The Sponsor shall have the sole right to file and prosecute a patent application on any Sponsor Invention and Joint Invention. If Sponsor elects not to file or to prosecute an application for a Joint Invention or if after filing such an application, Sponsor elects not to prosecute such application, then in any such case Sponsor shall notify the University promptly and, if University elects to file and prosecute such an application on a Joint Invention, Sponsor shall not grant rights to such Joint Invention to any third party without University's prior written permission. [**].

(d) **[**] & Option.**

i. [**], the Sponsor shall have [**]; *provided, however,* that [**].

ii. Option. For each University Invention or University's interest in a Joint Invention that, at the time the University makes written disclosure thereof to the Sponsor, [**], the Sponsor will have the option, for a period of three (3) months from the date of such disclosure to Sponsor, to elect to negotiate for a royalty-bearing, exclusive or non-exclusive, world-wide license to

University's rights in such Invention, including the right to sublicense, to make, have made, use, lease, sell, import and export products embodying or produced through the use of such Invention (the "**Option**"). In the event that the parties are unable to reach agreement on the terms of the license described above in this Section 8(d)(ii) for such Invention after three (3) months of good faith negotiations, and the parties therefore do not execute such license, the University may enter into an agreement relating to such Invention with any third party [**].

(e) **New License.** Any license to Sponsor as provided herein [**] will be granted by a separate license agreement signed by the parties which shall include at least the following terms and conditions: (a) an appropriate field of use; (b) mutually agreeable license fees and royalties; (c) mutually agreeable minimum royalties and/or other requirements of due diligence to develop and effectively commercialize the Invention; (d) reimbursement of University's cost of patent filing, prosecution and maintenance; (e) retention by University of a royalty-free right, sublicensable to its research partners, to use the Invention for teaching, research, or other educational or academic purposes; and (f) indemnification of the University.

(f) **Data.** University will retain ownership of the data arising out of the Research that University generates. Subject to other provisions of this Agreement, including those pertaining to Confidential Information and intellectual property, Sponsor will have access to the data and may use such data in connection with its internal research, subject to the applicable confidentiality provisions of this Agreement.

(g) **Tangible Research Property.** University shall retain ownership of property that is developed solely by University's employees, students, and agents, including, but not limited

to, prototypes, biogenic materials, samples, lab notebooks graphs, maps, drawings, and documents created or acquired under this Agreement (collectively, "**Tangible Research Property**"), except the University shall not retain ownership of any such Tangible Research Property that is a deliverable under this Agreement. [**]. University shall retain the right to use and distribute copies of all deliverables for educational and/or research purposes.

(h) **Copyrightable material.** As between University and Sponsor, University shall own all right, title and interest in and to any and all copyrights and copyrightable materials, including data and excluding software, that is created solely by University employees, students or agents in performance of this Agreement (collectively "**University Copyrights**"). As between University and Sponsor, Sponsor shall own all right, title and interest in and to any and all copyrights and copyrightable materials, including data, created solely by Sponsor employees or agents in performance of this Agreement (collectively, "**Sponsor Copyrights**"). As between University and Sponsor, University and Sponsor shall jointly own all right, title and interest in and to any and all copyrights and copyrightable materials, including data, created jointly by University employees, students, or agents and Sponsor employees or agents in performance of this Agreement (collectively, "**Joint Copyrights**"). University shall have the sole right to determine the disposition of University Copyrights, provided that Sponsor shall have option rights, in accordance with Section 8, in computer software and databases developed and delivered under the Statement of Work.

(i) **Background IP.** Neither party shall, by virtue of this Agreement, acquire rights to Inventions, copyrights, technical information, or tangible property concurrently created or acquired outside of this Agreement or that are owned by the other party prior to entering into this Agreement, including any background technology required to practice Inventions. Such rights may or may not be available for licensing.

9. Ownership of Property. Title to any equipment purchased or created in the performance of the work funded under this Agreement shall vest in the University.

10. Term and Termination.

(a) This Agreement shall be effective for the term January 6, 2017 through January 6, 2020 (the "**Term**"), and may be extended thereafter by mutual agreement of the parties in writing; provided, however, that the termination of this Agreement shall not relieve either party of any obligation of such party accrued prior to such termination hereunder. In particular, the provisions hereof relating to rights in patents and ownership of property shall survive such termination.

(b) Notwithstanding the foregoing, this Agreement may be terminated by either party at any time upon 180 days advance written notice to the other party; *provided, however,* that Sponsor may also terminate this Agreement pursuant to Section 2(a). Upon receipt of notice of early termination by Sponsor, the University shall use reasonable efforts promptly to limit or terminate any outstanding commitments prior to the effective termination date. All allowable costs associated with such termination and up through the date of termination, shall be reimbursed by Sponsor, including non-cancelable commitments, such as, where applicable, committed salary and benefits [**] for personnel shall be non-cancelable commitments. In case of such termination, such amounts for such non-cancellable obligations shall be the limits of the Sponsor's liability for payments to the University hereunder.

(c) If Sponsor breaches its obligation of payment and fails to remedy such breach within thirty (30) days after receipt of notice in writing of such breach, then if such payment

breach is not remedied in such thirty (30) day period, the University may, in addition to any other remedies that the University may have at law or in equity, terminate this Agreement by sending written notice of termination to Sponsor. Termination for material breaches will be effective from the date of notice to Sponsor and does not affect any of University's other rights under this Agreement.

11. Notices. Any notices given under this Agreement shall be in writing and shall be deemed delivered when sent by first-class mail, postage prepaid, addressed to the parties as follows (or at such other addresses as the parties may notify each other in writing):

The University	**Sponsor**
Yale University Office of Sponsored Projects (OSP) 25 Science Park - 3rd Floor P.O. Box 208327 New Haven, CT 06520-88327 ATTN: [**] Contract Manager	Inozyme Pharma, LLC [**] ATTN: Chief Executive Officer [**]
Yale University Office of Cooperative Research 433 Temple Street New Haven, CT 06511 ATTN: Managing Director	[**]

provided, however, that Invention Disclosures shall be addressed to the parties as follows:

Yale University	**Sponsor IPA**
Yale University Office of Cooperative Research Attn: Director of Intellectual Property 433 Temple Street New Haven, CT, 06511 P: [**] E: [**] CC: [**]	[**]

12. Use of Name. Neither party shall employ or use the name of the other party in any promotional materials or advertising without the prior express written permission of the other party.

13. Relationship of the Parties. The relationship of Sponsor and the University established by this Agreement is that of independent contractors. Nothing in this Agreement shall be construed to create a relationship of employment or agency, nor shall either party's employees, servants, agents, or representatives be considered the employees, servants, agents, or representatives of the other. Nothing in this Agreement shall be construed to constitute the parties as partners or joint venturers, or allow either of the parties to create or assume any obligation on behalf of the other party.

14. Indemnification. The following indemnification obligation applies only to the extent of Sponsor's use of the Research or any University intellectual property or Research Results. The Sponsor shall therefore defend, indemnify and hold harmless University, the Principal Investigator, in his capacity as such, and any of University's faculty, students, employees, trustees, officers, affiliates, and agents (hereinafter referred to collectively as the if "**Indemnified Persons**") from and against any and all liability, claims, lawsuits, losses, damages, costs or expenses (including attorneys' fees), which the Indemnified Persons may hereafter incur, or be required to pay, unless determined with finality by a court of competent jurisdiction to result solely from an Indemnified Person's gross negligence or willful misconduct. University shall notify Sponsor upon learning of the institution or threatened institution of any such liability, claims, lawsuits, losses, damages, costs and expenses and University shall cooperate with Sponsor in every proper way in the defense or settlement thereof at Sponsor's request and expense. Sponsor shall not dispose or settle any claim admitting liability on the part of the University without University's prior written consent.

15. NO WARRANTIES. THE UNIVERSITY MAKES NO WARRANTIES EITHER EXPRESS OR IMPLIED, AS TO ANY MATTER, INCLUDING, WITHOUT LIMITATION, THE RESULTS OF THE RESEARCH OR ANY INVENTIONS OR PRODUCT, TANGIBLE OR INTANGIBLE, CONCEIVED, DISCOVERED, OR DEVELOPED UNDER THIS AGREEMENT; OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH RESULTS OR OF ANY SUCH INVENTION OR PRODUCT. Neither party shall be liable for any indirect, consequential, lost profits, or other damages suffered by the other party or by any Licensee or any others resulting from the use of the research results, including any Invention, program, or product.

16. Export Controls. The University complies with all applicable laws and, regulations, including, where applicable, federal export control regulations. Many of the University employees (faculty and staff) and students are residents of foreign countries, including individuals who may work on this contract and/or have access to information conveyed to the University pursuant hereto. The University does not screen its employees or students based on nationality. In most situations, the University relies on the fundamental research exclusion from export control laws, but makes no representation as to whether Sponsor's conveyance of information or material to the University pursuant hereto would be covered by the export control laws. Each party agrees that before knowingly providing the other with export-controlled materials or data, it will provide written notice, including a description of the materials or data, and, if known, the appropriate ECCN or MCL designation. No such materials or data shall knowingly be shared without prior written approval.

17. Force Majeure. The University shall not be liable for any failure to perform as required by this Agreement, to the extent such failure to perform is caused by any reason beyond the University's control, or by reason of any of the following: labor disturbances or disputes of any kind, accidents, failure of any required governmental approval, civil disorders, acts of aggression, acts of God, energy or other conservation measures, failure of utilities, mechanical breakdowns, material shortages, disease, or similar occurrences.

18. Assignment. Neither the University nor the Sponsor shall assign this Agreement to any other person without the prior written consent of the other, and any purported assignment without such consent shall be void [**].

19. Severability. In the event that a court of competent jurisdiction holds any provision of this Agreement to be invalid, such holding shall have no effect on the remaining provisions of this Agreement, and they shall continue in full force and effect.

20. Entire Agreement: Amendments. This Agreement and the Exhibits hereto contain the entire agreement between the parties. No amendments or modifications to this Agreement shall be effective unless made in writing and signed by authorized representatives of both parties.

21. Similar Research. Nothing in this Agreement shall be construed to limit the freedom of the University or of its researchers who are not participants under this Agreement, from engaging in similar research made under other grants, contracts or agreements with parties other than the Sponsor.

22. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Connecticut.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized officers or representatives.

YALE UNIVERSITY	**INOZYME PHARMA, LLC**
By /s/ Jeffrey E. McGuinness	By /s/ Axel Bolte
Title Associate Director	Title Chief Executive Officer
Date January 10, 2017	Date January 10, 2017

Read and acknowledged:

Principal Investigator

/s/ Demetrios Braddock
Demetrios Braddock, MD PhD

Date 01/09/2017

Exhibit B: Budget

	Year 1	Year 2	Year 3	Total
YALE TOTAL DIRECT COSTS - Grant	**$ [**]**	**$ [**]**	**$ [**]**	**[**]**
Total Indirects	**$ [**]**	**$ [**]**	**$ [**]**	**[**]**
Total Grant Budget	**$ [**]**	**$ [**]**	**$ [**]**	**[**]**

YALE UNIVERSITY

AMENDMENT NO. 1 TO
CORPORATE SPONSORED RESEARCH AGREEMENT

This AMENDMENT NO. 1 TO CORPORATE SPONSORED RESEARCH AGREEMENT, dated as of February 19, 2019 (this "**Amendment**"), by and between Yale University, a non-profit corporation organized and existing under and by virtue of a special charter granted by the General Assembly of the Colony and State of Connecticut (the "**University**"), and **Inozyme Pharma, Inc.**, a Delaware corporation, having its principal offices at 280 Summer Street, Floor 5, Boston, Massachusetts 02210 (the "**Sponsor**"), amends the RESEARCH AGREEMENT, entered into as of January 6, 2017 (the "**Agreement**"), by and between the University and the Sponsor.

W I T N E S S E T H:

WHEREAS, the Sponsor has funded a research program in the field of ENPPS.

WHEREAS, the Sponsor now wishes to continue to fund for an extended period (years 3-5) research programs in the field of expertise of the Principal Investigator, as described more fully in Exhibit A, attached to this Amendment; and

WHEREAS, the Sponsor wishes to allow for a broader research program and to amend the the budget for the research to take place during the Extended Term (as defined herein) as provided in the Agreement, and the University is willing to agree to such modifications and to undertake such research upon the terms and conditions set forth below and in the Agreement;

NOW, **THEREFORE**, in consideration of the premises and the mutual covenants herein contained, the parties hereto agree as follows:

1. **Scope of Research**. Upon the effectiveness of this Amendment, the Agreement is hereby amended such that during the Extended Term, the University shall use reasonable efforts to perform the research program described in **Exhibit A**, attached hereto and incorporated herein and incorporated in the Agreement to allow for expansion of the original Research, and otherwise in accordance with the terms and limitations provided in the Agreement. The Research provided for in this Amendment shall be in lieu of the portion of the Research for the third year of the Term as provided in the Agreement and shall also extend for the Extended Term. Any additional research requested by Sponsor that is supplemental to the research

selected by the Principal Investigator – relating to ENPPs within the amended program described in Exhibit A attached hereto, shall be the subject of a separately negotiated financial agreement between the University and Sponsor.

2. **Reimbursement of Costs**. The Agreement is hereby amended such that the Sponsor shall reimburse the University for all direct and indirect costs incurred by the University in connection with the Extended Research, in accordance with the budget set forth as **Exhibit B** hereto (the "**Extended Budget**"), in the amount of [**] Dollars ($[**]), attached hereto and which hereby is incorporated herein and incorporated in the Agreement. The first year of the Extended Budget shall be in lieu of $[**] of Total Grant Budget for Year 3 as shown in the budget attached as Exhibit B to the Agreement. Nothing in this Amendment modifies the Total Grant Budget shown for each of Year 1 and Year 2 in the Agreement. Once the parties execute and deliver this Amendment, the Total Grant Budget and Extended Budget under the Agreement, as amended by this Amendment, will be:

Year 1	$[**]
Year 2	$[**]
Year 3	$[**]
Year 4	$[**]
Year 5	$[**]
Total	$2,409,708

Indirect costs for the Extended Budget shall be as shown in the Extended Budget.

3. **Amendment to Term**. The first sentence of Section 10(a) of the Agreement is hereby amended by deleting the words "January 6, 2020" and substituting in lieu thereof "December 31, 2021". The period of the New Research shall be referred to as the "Extended Term."

4. **Defined Terms**. Capitalized terms used in this Amendment and defined in the introductory paragraph of, or recitals to, this Amendment shall have the respective meanings provided therein. Capitalized terms used in this Amendment and not defined in this Amendment shall have the respective meanings provided in the Agreement except as otherwise expressly provided herein.

5. **Effectiveness**. This Amendment shall become effective as of the date first set forth above once this Amendment or counterparts hereof shall have been executed and delivered by University and the Sponsor.

6. **Confirmation of Original Agreement**.

(a) Except as amended by this Amendment, the Agreement shall remain in füll force and effect in accordance with its terms. From and after the date this Amendment becomes effective, any reference in the Agreement to the "Agreement", the "Research" or the "Term" shall be deemed a reference to the Agreement, as amended hereby, the Research, as defined hereby, or the Extended Term, as defined hereby, respectively.

7. **Governing Law**. This Amendment shall be governed by and construed in accordance with the laws of the State of Connecticut.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized officers or representatives.

YALE UNIVERSITY

By /s/ James Cresswell

Title Sr. Contract Manager

Date: February 19, 2019

INOZYME PHARMA, INC.

By */s/ Henric Bjarke*

Title COO

Date: 2/22/2019

Read and acknowledged:

Principal Investigator

/s/ Demetrios Braddock
Demetrios Braddock, MD PhD

Date: February 19th, 2019

Exhibit B: Extended Budget

Amendment No. 1 to Corporate Sponsored Research Agreement

	Year 3	Year 4	Year 5	Total
Total Direct Costs	[**]	[**]	[**]	**[**]**
Indirect Rage	[**]	[**]	[**]	[**]
Total Indirect Costs	[**]	[**]	[**]	**[**]**
Total Grant Budget	**[**]**	**[**]**	**[**]**	**[**]**

INOZYME PHARMA, LLC
RESTRICTED STOCK AGREEMENT

THIS RESTRICTED STOCK AGREEMENT, dated as of the date set forth on **Exhibit A** hereto (this "Agreement"), by and between Inozyme Pharma, LLC, a Delaware limited liability company (the "Company"), and the person named in **Exhibit A** hereto (the "Purchaser").

W I T N E S S E T H:

WHEREAS, the Company wishes to sell, and the Purchaser wishes to purchase, shares of Class 1 Stock (as hereinafter defined) in the Company as shown on **Exhibit A** hereto; and

WHEREAS, the Company is offering to sell such shares to the Purchaser as part of the consideration for the Purchaser serving in the office(s) or position(s), if any, shown on **Exhibit A** hereto; and

WHEREAS, the Company and the Purchaser wish to set forth certain agreements concerning restrictions on the Purchaser's rights with respect to such shares;

NOW THEREFORE, in consideration of the premises and the mutual covenants herein set forth, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Purchaser agree as follows:

1. Purchase and Sale of Shares; Closing.

(a) Upon the terms and subject to the conditions of this Agreement, the Company hereby agrees to sell to the Purchaser, and the Purchaser hereby agrees to purchase from the Company, on the Closing Date (as hereinafter defined), the number of shares of Class 1 Stock of the Company (the "Class 1 Stock") shown on **Exhibit A** hereto (the "Shares") for the aggregate purchase price shown on **Exhibit A** hereto (the "Purchase Price") and for the other consideration, if any, stated on **Exhibit A** hereto. The Purchaser shall pay the Purchase Price for the Shares by check or in cash. The attached Exhibits form part of this Agreement.

(b) The purchase and sale of the Shares shall occur at a closing (the "Closing") to be held at such time as shall be designated by the Company (the "Closing Date") by at least two days' notice to the Purchaser. The Closing will be held at the office of the Company's legal counsel shown on **Exhibit A** hereto or at such other place as shall be designated by the Company. At the Closing, the Purchaser shall:

(1) execute and deliver to the Company a counterpart of the Limited Liability Company Agreement of Inozyme Pharma, LLC, dated as of September 11, 2015 (as amended from time to time, the "LLC Agreement");

(2) execute and deliver to the Company and the other parties thereto a counterpart of the Stockholders Agreement, dated as of September 11, 2015 (as amended from time to time, the "Stockholders Agreement");

(3) execute and deliver to the Company a counterpart of the Registration Rights Agreement, dated as of September 11, 2015 (the "Registration Rights Agreement"); and

(4) deliver to the Company a check payable to the order of the Company or cash in the amount of the Purchase Price.

As promptly as practicable thereafter, the Company shall amend the Stockholders Ledger (as defined in the LLC Agreement), to reflect the admission of the Purchaser as a Member holding the number of Shares purchased hereunder.

2. Purchase Option.

(a) (1) As set forth in **Exhibit A** hereto, a portion of the Shares shall be subject to the right and option of certain other persons who are Members holding shares of Class 1 Stock of the Company and who are named in **Exhibit A** hereto (the "Purchase Right Members") to purchase such portion of the Shares (the "Member Purchase Option") and, if no Purchase Right Member exercises his Member Purchase Option or if Purchase Right Members exercise the Member Purchase Option for fewer than all the Shares subject thereto, to the right and option of the Company to purchase the available amount of such Shares (the "Company Purchase Option"), all as set forth in this Section 2. The Purchaser hereby grants the Purchase Right Members the right to exercise the Member Purchase Option if a "Purchase Event" as defined in **Exhibit A** hereto shall occur (the "Purchase Event").

(2) If the Purchase Right Members do not exercise the Member Purchase Option for all Shares subject to the Member Purchase Option, then the Purchaser hereby grants the Company the right to exercise the Company Purchase Option.

(3) Following a Purchase Event, the Purchase Right Members shall have the right, as provided in subsection (b) of this Section 2, to purchase from the Purchaser or the Purchaser's personal representative, as the case may be, at the Option Price (as defined herein), the number of Shares determined by the calculation shown on **Exhibit A** hereto opposite the heading "Calculation of Shares Subject to Member Purchase Option and Company Purchase Option."

(4) Whenever under this Agreement a determination is to be made as to the number of Shares that are subject to the Member Purchase Option, if such number so subject would not otherwise be a whole number then such number shall be rounded to the nearest whole number, but customary conventions for successive roundings shall be applied so that in no event shall rounding result in the total number of Shares, including the portion no longer subject to the Member Purchase Option or the Company Purchase Option, the portion subject to the Member Purchase Option and the Company Purchase Option and the portion with respect to which the Purchase Right Members have exercised the Member Purchase Option and the Company has exercised the Company Purchase Option, exceeding the original number of Shares subject to such Purchase Options.

(5) The Company shall have the right to assign its right to purchase the Shares by reason of exercise of the Company Purchase Option. The Member Purchase Option shall inure to the benefit of, and be exercisable by, each Purchase Right Member's executors, administrators, heirs and personal representatives.

(6) The "Option Price" shall equal the price per Share reflected in the Purchase Price for the number of Shares for which the Option Price is being calculated.

(b) (1) Within ten Business Days after a Purchase Event occurs, the Company shall notify the Purchase Right Members of the occurrence of such Purchase Event, which notice shall state the date on which the Purchase Event occurred, the number of Shares subject to the Member Purchase Option and the Purchaser's address for purposes of notices under this Agreement. Within 90 days following such Purchase Event, each Purchase Right Member shall notify the Purchaser, if such Purchase Right Member wishes to exercise his Member Purchase Option. A Purchase Right Member may exercise the Member Purchase Option for all or any part of the Shares that are subject to the Member Purchase Option at the time of the Purchase Event, and shall state the number of Shares such Purchase Right Member wishes to purchase in his exercise notice.

(2) If the aggregate number of Shares for which Purchase Right Members exercise the Member Purchase Option is less than or equal to the number of Shares subject to the Member Purchase Option, then each exercising Purchase Right Member shall be entitled and obligated to purchase the number of Shares stated in his exercise notice. Any remaining Shares subject to the Member Purchase Option and not taken up by exercise of the Member Purchase Option shall be subject to the Company Purchase Option, as provided in Section 2(c).

(3) If the aggregate number of Shares for which Purchase Right Members exercise the Member Purchase Option is greater than the number of Shares subject to the Member Purchase Option, then each exercising Purchase Right Member shall be allocated a number of such Shares equal to the lesser of (1) the number of Shares for which such Purchase Right Member exercised the Member Purchase Option and (2) such Purchase Right Member's Pro Rata Share of the number of Shares subject to the Member Purchase Option. The remaining Shares not so allocated shall be allocated among Purchase Right Members who exercised the Member Purchase Option for more than their Pro Rata Share. Each such Purchase Right Member shall be allocated such number of remaining Shares equal to the lesser of (1) the number of Shares for which such Purchase Right Member exercised the Member Purchase Option in excess of such Purchase Right Member's Pro Rata Share of the aggregate number of Shares subject to the Member Purchase Option and for which no allocation of Shares has been made and (2) such Purchase Right Member's Pro Rata Share of such remaining Shares. The immediately preceding allocation method shall be applied successively until all Shares are allocated among the Purchase Right Members.

(4) The term "Pro Rata Share" shall mean at any time with respect to any Purchase Right Member a fraction the numerator of which is the number of shares of Class 1 Stock of the Company owned by such Purchase Right Member at the time of exercise of the Member Purchase Option by such Purchase Right Member, as such number is shown in the Company's Stockholders Ledger, and the denominator of which is the aggregate number of shares of Class 1 Stock owned, at the time of exercise of the Member Purchase Option by the respective

Purchase Right Members, by the Purchase Right Members who have validly exercised the Member Purchase Option in connection with the Purchase Event for which the Pro Rata Share is being calculated, as such number is shown in the Company's Stockholders Ledger. In case the number of Shares constituting a Purchase Right Member's Pro Rata Share would otherwise result in a fraction of a Share, such number shall be rounded using customary rounding conventions for all exercising Purchase Right Members so that no such Purchase Right Member's Pro Rata Share results in a fraction of a Share and the sum of all exercising Purchase Right Members' Pro Rata Shares equals the number of Shares subject to the Member Purchase Option the exercise of which gives rise to the calculation of Pro Rata Shares.

(c) If any Shares subject to the Member Purchase Option remain unallocated to Purchase Right Members after application of Section 2(b), then within 90 days following the Purchase Event the Company shall notify the Purchaser as to whether the Company wishes to purchase all or some of the Shares that are subject to the Company Purchase Option pursuant to exercise of the Company Purchase Option or that the Company has assigned all or part of the Company Purchase Option to another person who wishes to purchase all or some of such Shares pursuant to exercise of the Company Purchase Option.

(d) If any Purchase Right Member or the Company (or its assignee) elects to purchase any Shares hereunder, the Company shall set a date for the closing of the transaction (the "Option Purchase Closing") at a place and time specified by the Company or, at the Company's election exercised by notice in writing to the exercising Purchase Right Members and to the Purchaser, the Option Purchase Closing may be completed by mail. At the Option Purchase Closing, each purchasing Purchase Right Member and the Company (or its assignee) shall tender payment for the applicable number of Shares to be purchased pursuant to the Member Purchase Option or Company Purchase Option, as the case may be, calculated based on the applicable Option Price, and the applicable number of Shares so purchased shall be transferred to each purchasing Purchase Right Member and the Company (or its assignee), respectively. The amount payable by the Company at the Option Purchase Closing shall be payable to the Purchaser, at the election of the Company exercised by notice in writing to the Purchaser, by cancellation of all or a portion of any outstanding indebtedness of the Purchaser to the Company or in cash or by check, or any combination thereof. The amount payable by a Purchase Right Member or an assignee of the Company shall be payable in cash or by check.

(e) The Purchaser hereby pledges and grants a security interest to the Company in the portion of the Shares that, from time to time, are subject to the Member Purchase Option and the Company Purchase Option, in order to secure the obligation of the Purchaser to transfer to Purchase Right Members and the Company upon exercise of the Member Purchase Option and the Company Purchase Option, as the case may be, the portion of the Shares that are subject to the Member Purchase Option and the Company Purchase Option. The Company may file financing statements under the Uniform Commercial Code to record such pledge and security interest. Upon the Company's request, the Purchaser will promptly execute such financing statements from time to time. The Purchaser hereby constitutes the Company's Board of Directors (the "Board"), with full power of substitution, as the Purchaser's attorney-in-fact for purposes of executing and filing any and all such financing statements on behalf of the Purchaser and hereby authorizes the Board or its duly appointed officer of the Company to sign such financing statements.

3. Certain Adjustments to the Shares. If, from time to time during the term of this Agreement:

(a) There is any in-kind dividend, liquidating distribution payable in securities, membership share split, reverse membership share split, combination or other change in the character or pro rata change in the amount of any of the membership shares of stock of the Company of the same class as the Shares (or any successor or substitute securities), in any such case which affects the Shares (or any successor or substitute securities); or

(b) There is any consolidation or merger of the Company or sale of assets of the Company followed by a dividend, distribution or other payment to members; or

(c) There is any tender or exchange offer to holders of membership shares of stock of the Company (or any successor or substitute securities) of the same class as the Shares (or any successor or substitute securities),

then in each such event, any and all new, substituted or additional securities or other property to which the Purchaser is entitled by reason of the Purchaser's ownership of the Shares shall become subject to this Agreement immediately upon the Purchaser becoming entitled thereto and shall be included in the term "Shares" for all purposes with the same force and effect as the Shares subject to the Member Purchase Option, Company Purchase Option, and other terms of this Agreement are so subject as of the date of this Agreement. While the aggregate Option Price at the time payable upon exercise of the Member Purchase Option or Company Purchase Option shall remain the same immediately after each such event as the aggregate Option Price immediately before such event, the Option Price payable for each Share and/or other unit of security or property payable upon exercise of the Member Purchase Option or Company Purchase Option shall be appropriately adjusted as determined by the Board and set forth in a resolution duly adopted by the Board. In case any such substituted or additional securities or other property is certificated securities, the Company may establish an escrow and require such certificated securities that are subject to the Member Purchase Option or Company Purchase Option to be deposited in such escrow to assure delivery thereof, free of liens, upon exercise of the Member Purchase Option and Company Purchase Option. The Purchaser shall also sign and deposit in such escrow stock, bond or other powers in blank relating to such additional escrowed securities, as required by the Company.

4. Restriction on Transfer. (a) In addition to any restrictions contained in the LLC Agreement, the Stockholders Agreement, the Registration Rights Agreement or any agreement entered into pursuant to any thereof, the Purchaser shall not sell, transfer, pledge, hypothecate or otherwise dispose of any of the Shares that remain subject to the Member Purchase Option or the Company Purchase Option, subject only to the exceptions specified in Section 5. Any transfer of such Shares permitted by Section 5 shall be made strictly in accordance with the terms of this Agreement.

(b) The Purchaser shall not sell, transfer, pledge, hypothecate or otherwise dispose of any of the Shares, even when made in accordance with Sections 4(a) and 5, except in accordance with the terms of the LLC Agreement, the Stockholders Agreement or the Registration Rights Agreement.

5. Termination of Purchase Options.

(a) The provisions of Section 2 and Section 4(a) shall terminate as to the Shares on the closing date of the earliest of:

(1) the closing of a sale of all or substantially all of the assets of the Company;

(2) the closing of a merger, consolidation or similar business combination transaction of the Company pursuant to which, in exchange for their membership shares of stock in the Company, the members of the Company receive cash, property (other than membership shares of stock in the Company) or shares of stock or other securities of another company and in which transaction persons who held membership shares of stock in the Company immediately prior to such transaction do not own a majority of the shares of common stock (or equivalent securities) of such other company that are outstanding immediately after such transaction; or

(3) the purchase by a third party or a Group (as defined herein), including, without limitation, by way of a tender offer by a third party or Group, of a number of shares of stock of the Company that, together with any shares owned by such person or any member of such Group, entitle the holders together to elect a majority of the members of the Board, whether purchased in a single transaction or a series of related transactions.

As used herein, "Group" shall have the meaning of such term for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, and Regulation 13D-G thereunder.

(b) The provisions of Section 2 shall also terminate as to Shares at the time subject to the Member Purchase Option and Company Purchase Option as stated on **Exhibit A.**

(c) The restrictions on transfer in Section 4(a) shall not apply to a transfer of any Shares by the Purchaser, either during the Purchaser's lifetime or on death by will or intestacy, in any such case to the Purchaser's ancestors, descendants or spouse; *provided, however,* that in each such case a transferee shall receive and hold the transferred Shares subject to the provisions of this Agreement, including, without limitation, Sections 2 and 4 hereof; and *provided further, however,* that there shall be no further transfer of such Shares so long as the Shares remain subject to the Member Purchase Option and the Company Purchase Option, other than a transfer pursuant to this Section 5(c). Each such permitted transferee under this Section 5(c) shall enter into a written agreement with the Company prior to such transfer agreeing to be bound by this Agreement on terms acceptable to the Company. After any such transfer, the expiration or termination of the Member Purchase Option and Company Purchase Option shall be applied pro rata to Shares held by the Purchaser and Shares held by each permitted transferee.

(d) The Company shall not be required (i) to transfer any Shares on its books if such Shares shall have been sold or transferred in violation of any of the provisions set forth in this Agreement, the LLC Agreement, the Stockholders Agreement, the Registration Rights Agreement or any agreement entered into pursuant to any thereof, or (ii) to treat as owner of the Shares or to accord any economic or membership rights to vote as such purported transferee or to pay distributions to any such purported transferee to whom all or any part of the Shares shall have been so transferred.

(e) Subject to the other provisions of this Section 5, in the event of any purported transfer by operation of law or other involuntary transfer (including, but not limited to, transfers by operation of law or other involuntary transfers in connection with a divorce, dissolution, legal separation or annulment) by the Purchaser or its permitted transferee of all or a portion of the Shares that are subject to the Member Purchase Option or the Company Purchase Option which transfer does not occur in accordance with the other provisions of this Section 5, the Company shall have the right to purchase all of such Shares transferred at the purchase price paid by the Purchaser pursuant to this Agreement. Upon such a transfer, the persons purporting to transfer or to acquire such Shares shall promptly notify the Company in writing of such transfer. The right to purchase such Shares shall be provided to the Company during the period from the time of such transfer to the date that is 90 days following receipt by the Company of such written notice of the transfer.

6. Legends. All certificates, if any, for any of the Shares subject to the provisions of this Agreement shall have endorsed thereon the following legends:

(a) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AS SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE MEMBER, A COPY OF WHICH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY."

(b) "THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT TO THE SECURITIES UNDER THE SECURITIES ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED OR UNLESS SOLD PURSUANT TO RULE 144 OF THE SECURITIES ACT."

(c) Any legend required to be placed thereon by applicable blue sky laws of any state.

(d) The Company may also place stop transfer restrictions in its Stockholders Ledger and give stop transfer instructions to its transfer agent, if any, to give effect to the restrictions arising under this Agreement and applicable law.

7. Representations, Warranties, Covenants and Agreements.

(a) ***By the Purchaser.*** The Purchaser hereby represents and warrants to, and covenants and agrees with, the Company as follows:

(1) ***Circumstances of Purchase; Capacity to Protect Interests***. The Purchaser is purchasing the Shares solely for the Purchaser's own account and not with a view to or for sale in connection with any distribution of the Shares or any portion thereof and not with any present intention of selling, offering to sell or otherwise disposing of or distributing the Shares

or any portion thereof in any transaction other than a transaction exempt from registration under the Securities Act of 1933, as amended (the "1933 Act"). The entire legal and beneficial interest in the Shares is being purchased, and will be held, for the Purchaser's account only, and neither in whole nor in part for any other person.

(2) ***Information Concerning Company; Location.*** The Purchaser has heretofore had an opportunity to discuss the offering of the Shares and the Company and its business, plans, operations and financial condition with the Company's officers and has heretofore received all such information as the Purchaser has deemed necessary and appropriate to enable the Purchaser to evaluate the financial risks inherent in making an investment in the Shares, and the Purchaser has received satisfactory and complete responses concerning the offering of the shares and the business and financial condition of the Company to all inquiries in respect thereof; and the Purchaser has received, read and understands the terms of the LLC Agreement, the Stockholders Agreement and the Registration Rights Agreement. The Purchaser's principal residence or principal place of business is located at the address set forth on **Exhibit A** hereto.

(3) ***Restricted Securities.*** The Purchaser understands and acknowledges that:

(A) the sale of the Shares has not been registered under the 1933 Act, and the Shares must be held indefinitely unless subsequently registered under the 1933 Act and applicable state blue sky laws or an exemption from such registration is available, and the Company is under no obligation to so register the Shares except as provided in the Registration Rights Agreement;

(B) any certificates for the Shares will bear the legends specified in, or permitted by, Section 6 hereof; and

(C) the Company will make a notation in its records and the records of any transfer agent of the aforementioned restrictions on transfer and legends.

(4) ***Disposition under Rule 144.*** The Purchaser understands that the Shares are restricted securities within the meaning of Rule 144 promulgated under the 1933 Act; that the exemption from registration under Rule 144 will not be available in any event for at least one year from the date of purchase and payment for the Shares, and even then will not be available unless (i) a public trading market then exists for shares of Class 1 Stock of the Company, (ii) adequate information concerning the Company is then available to the public, and (iii) other terms and conditions of Rule 144 are complied with, and that any sale of the Shares under Rule 144 may be made only in limited amounts in accordance with such terms and conditions, subject at all times to the other restrictions on any transfer of the Shares which restrictions are contained in this Agreement, the LLC Agreement, the Stockholders Agreement or the Registration Rights Agreement.

(5) ***Further Limitations on Disposition.*** Without in any way limiting the Purchaser's representations, warranties, covenants and agreements set forth above, the Purchaser further represents, warrants, covenants and agrees that the Purchaser shall not make any disposition of all or any portion of the Shares unless and until:

(A) (i) There is then in effect a registration statement under the 1933 Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(ii) (x) the Purchaser shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, (y) the Purchaser shall have furnished the Company with an opinion of the Purchaser's counsel, which opinion shall be satisfactory in form, scope and substance to the Company, to the effect that such disposition will not require registration of the Shares under the 1933 Act, and (z) such opinion of the Purchaser's legal counsel shall have been concurred in by legal counsel for the Company and the Company shall have advised the Purchaser of such concurrence; and

(B) The Shares that the Purchaser proposes to transfer are no longer subject to the Member Purchase Option or the Company Purchase Option set forth in Section 2 hereof and the Purchaser shall have complied with the applicable terms of the LLC Agreement, the Stockholders Agreement, the Registration Rights Agreement and any other agreement entered into pursuant to any thereof.

(6) ***Other Restrictions.*** (A) The Purchaser shall not sell or otherwise transfer or dispose of any Shares (or capital stock of any successor) for a period specified by the representative of the underwriters of Shares (or other securities) of the Company (or any successor) not to exceed 180 days following the effective date of each public offering of the Company's (or its successor's) securities pursuant to a registration statement of the Company (or its successor) filed under the 1933 Act; provided, that such period may be extended upon the request of the managing underwriter(s) to the extent required by any rules of the Financial Industry Regulatory Authority for an additional period of up to 15 days if the Company (or its successor) issues or proposes to issue an earnings or other public release within 15 days of the expiration of such period. The Purchaser agrees to execute and deliver such other agreements as may be reasonably requested by the Company (or its successor) or the underwriter(s) that are consistent with the foregoing or which are necessary or appropriate to give further effect thereto. In addition, if requested by the Company (or its successor) or the representative of the underwriters of Shares (or other securities) of the Company (or its successor), the Purchaser shall immediately provide, within ten days of such request, such information as may be required by the Company (or its successor's) or such representative in connection with the completion of any public offering of the Company's (or its successor's) securities pursuant to a registration statement filed under the 1933 Act. The obligations described in this Section 7(f) shall not apply to a registration relating solely to employee benefit plans on a Registration Statement or Form S-8 or similar forms that may be promulgated by the Securities and Exchange Commission (the "SEC") in the future, or a registration relating solely to a transaction covered by a Registration Statement on Form S-4 under Rule 145 as promulgated by the SEC or similar forms that may be promulgated by the SEC in the future. The Company (or its successor) may impose stop-transfer instructions with respect to the Shares (or other securities) subject to the foregoing restriction until the end of such market standoff period.

(B) In connection with any underwritten public offering of equity interests in the Company or equity securities of any successor, the Purchaser shall,

immediately upon request of the Company, enter into such further restrictions on resale of the Shares or any other securities issued or exchanged directly or indirectly in respect of the Shares as the Company (or its successor) and any underwriter(s) for such offering may reasonably request in order to facilitate the offer, sale and distribution of equity interests in the Company or any successor in connection with such offering so long as the terms of such restrictions are substantially the same as those required of other persons who are or were members of the Company who are subject to restrictions similar to this Section 7(a)(6).

(C) The Purchaser will, immediately upon request of the Company (or its successor), also execute and deliver with respect to the Shares or such other securities any stockholders or equity holders agreement, voting agreement, investor rights agreement or similar agreement from time to time approved by the Board or the board of directors or similar body of the Company's successor.

(7) ***Valuation of Shares.*** (A) The Purchaser understands that the Company has not appraised the value of the Shares and that the responsibility for valuing the Shares for purposes of the Purchaser's income taxes rests solely with the Purchaser. The Purchaser understands that the Company can give no assurances that the Purchase Price is the fair market value of the Shares and that it is possible that, with the benefit of hindsight, the Internal Revenue Service (the "I.R.S.") might successfully assert that the value of the Shares on the Closing Date is greater than the Purchase Price.

(B) If the I.R.S. were to succeed in a determination for federal income tax purposes that the Shares have value greater than that upon which the sale thereof hereunder was based, the additional value would constitute ordinary income as of the date of its receipt (or, in the case of Shares subject to restrictions, as of the date the restrictions lapse if the Purchaser does not make an election as provided in Section 7(h)). The additional taxes (and interest) due would be payable by the Purchaser, the Company has no obligation to reimburse the Purchaser for the tax liability, and the Purchaser assumes all responsibility for such potential tax liability. If such additional value represents more than 25 percent of the Purchaser's gross income for the year in which the value of the Shares was taxable, the I.R.S. would have six years from the due date for filing the return (or the actual filing date of the return if filed thereafter) within which to assess the Purchaser the additional tax and interest which would then be due. The Purchaser understands that additional tax consequences could arise under applicable state and local laws. The Purchaser understands and agrees that the Purchaser must rely on its own tax advisers and not on the Company, and that the information in this Agreement and any other statements or information made to the Purchaser as to tax aspects of the purchase of the Shares is for information only, and shall not constitute tax advice by the Company or its professional advisors to the Purchaser.

(8) ***Section 83(b) Election.*** The Purchaser understands that section 83 of the Internal Revenue Code of 1986, as amended (the "Code"), taxes as ordinary income the difference between the amount paid for the Shares and the fair market value of the Shares as of the date any restrictions on the Shares lapse. In this context, "restriction" means the right of other members of the Company or of the Company to buy the Shares pursuant to the Member Purchase Option and the Company Purchase Option, other than any such restrictions that by their terms never lapse. The Purchaser agrees to elect to be taxed at the time the Purchaser purchases the

Shares, rather than when and as the Member Purchase Option and the Company Purchase Option restrictions lapse, by filing an election under section 83(b) of the Code with the I.R.S. within 30 days after the Closing Date. Even if the fair market value of the Shares equals the amount paid for the Shares, the election must be made so that any subsequent increase in the value of the Shares prior to the lapse of restrictions will not be taxed as ordinary income. A form for making this election is attached hereto as **Exhibit B**. The Purchaser understands that failure to make this filing timely could result in the recognition of additional ordinary income by the Purchaser, as the Member Purchase Option and the Company Purchase Option lapse, on the amount, if any, by which the fair market value of the Shares (or a portion thereof) at the time such restrictions lapse exceeds the portion of the Purchase Price paid for such Shares. The Purchaser also understands that any income recognized as a result of a section 83(b) election will not give rise to an offsetting deduction in the event of a subsequent forfeiture resulting from the restrictions or a decline in the value of the Shares.

THE PURCHASER ACKNOWLEDGES THAT IT IS THE PURCHASER'S SOLE RESPONSIBILITY, AND NOT THE COMPANY'S, TO FILE TIMELY THE ELECTION UNDER SECTION 83(b) OF THE CODE, EVEN IF THE PURCHASER REQUESTS THE COMPANY OR ITS REPRESENTATIVES TO MAKE THIS FILING ON THE PURCHASER'S BEHALF.

(9) ***Withholding Taxes.*** At the time the Purchaser purchases the Shares and upon each lapse of the Member Purchase Option and the Company Purchase Option, the Purchaser shall be required, if applicable, to pay to the Company in cash (or make other arrangements for satisfaction of) any taxes of any kind required by law to be withheld with respect to such Shares, all on terms satisfactory to the Company. The Company shall have the right to deduct any such taxes from any payment of any kind otherwise due to the Purchaser and shall not be obligated remove the Shares from the terms of this Agreement or recognize any purported transfer thereof until the Purchaser pays or makes provision for such taxes, satisfactory to the Company.

(10) ***Additional Terms and Provisions.*** The Purchaser also makes the representations, warranties, covenants and agreements, if any, as set forth under the heading "Additional Terms and Provisions" on **Exhibit** A hereto.

(b) ***By the Company.*** The Company hereby represents and warrants to, and covenants and agrees with, the Purchaser as follows:

(1) ***Organization and Corporate Power.*** The Company is a limited liability company duly formed, validly existing and in good standing under the laws of the State of Delaware. The Company has all requisite corporate power and authority to enter into and perform this Agreement, the LLC Agreement, the Stockholders Agreement and the Registration Rights Agreement and generally to carry out the transactions contemplated hereby and thereby.

(2) ***Authorization.*** (A) Prior to the Closing, this Agreement, the LLC Agreement, the Stockholders Agreement and the Registration Rights Agreement and all other documents and instruments executed or to be executed by the Company in connection herewith and therewith will have been duly authorized, this Agreement has been duly executed and

delivered by the Company and constitutes, and the Stockholders Agreement and the Registration Rights Agreement, when executed and delivered by the Company will constitute, the legal, valid and binding obligations of the Company, enforceable in accordance with their respective terms except as limited by applicable bankruptcy, insolvency and similar creditors' rights laws and except that equitable remedies may be unavailable, whether sough in a proceeding at law or in equity. Prior to the Closing, the execution, delivery and performance of this Agreement, the LLC Agreement, the Stockholders Agreement and the Registration Rights Agreement, and the issuance, sale and delivery of the Shares will have been duly authorized by all necessary corporate or other action of the Company.

(B) At the time of the Closing, no further approval or authorization of the members of the Company or the Board or of any governmental authority will be required for the issuance and sale of the Shares. Except as provided in the LLC Agreement, this Agreement and the Restricted Stock Agreements by and between the Company and the Purchase Right Members, no member of the Company or any other Person is entitled to any preemptive or similar rights with respect to the purchase or sale of any securities by the Company. When issued and sold to the Purchaser, the Shares shall be duly and validly issued, with no personal liability attaching to the ownership thereof and the Shares shall have the rights as set forth in the LLC Agreement. There are no restrictions on the transfer of shares of stock of the Company other than those imposed by relevant federal and state securities laws and as otherwise contemplated by this Agreement and as otherwise provided in the LLC Agreement, the Stockholders Agreement and the Registration Rights Agreement. The offer and sale of all capital stock and other securities of the Company issued before the Closing in offerings of securities complied with or were exempt from all applicable federal and state securities laws and no member has a right of rescission or damages with respect thereto. No holder of any securities of the Company is entitled to any alteration of the terms or the amount of such securities by reason of the issuance of the Shares.

(3) ***Compliance with Other Instruments.*** The Company is in compliance in all material respects with the terms and provisions of the LLC Agreement. The execution, delivery and performance by the Company of this Agreement, the Stockholders Agreement and the Registration Rights Agreement and the other agreements and transactions contemplated hereby and thereby will not conflict with or result in any default under any material contract, obligation or commitment of the Company or any provision of the LLC Agreement, or corporate restriction of the Company, or the creation of any encumbrance upon any of the properties or assets of the Company, except pursuant to this Agreement. The Company's execution and delivery of this Agreement, the Stockholders Agreement and the Registration Rights Agreement and its performance of the transactions contemplated hereby and thereby will not violate any material instrument, agreement, judgment, or decree, order, statute, rule or regulation of any governmental authority applicable to the Company. No consent, approval or authorization of, or declaration, filing or registration with, any governmental authority is required to be made or obtained by the Company in connection with its execution or delivery of this Agreement, the Stockholders Agreement and the Registration Rights Agreement, the performance by the Company of its obligations hereunder and thereunder or the consummation of the transactions contemplated hereby or thereby.

(4) ***Offerees.*** Neither the Company nor anyone acting on its behalf has in the past or will hereafter sell, offer for sale or solicit offers to buy any securities of the Company so as to bring the offer, issuance or sale of the Shares to the Purchaser, as contemplated by this Agreement, within the provisions of Section 5 of the 1933 Act.

8. Limitation on Payments.

(a) ***Payments Limitation.*** If the severance and other benefits provided for in this Agreement or otherwise payable to the Purchaser (i) constitute "parachute payments" within the meaning of section 280G of the Code, and (ii) would be subject to the excise tax imposed by section 4999 of the Code (the "Excise Tax"), then the Purchaser's benefits under this Agreement shall be either:

(1) delivered in full, or

(2) delivered to such lesser extent that would result in no portion of such benefits being subject to the Excise Tax,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Purchaser on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under section 4999 of the Code. Any reduction in payments and/or benefits required by this Section 8 will occur in the following order: (1) reduction of cash payments; (2) reduction of vesting acceleration of equity awards; and (3) reduction of other benefits paid or provided to the Purchaser. If acceleration of vesting of equity awards is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant for the Purchaser's equity awards. If two or more equity awards are granted on the same date, each award will be reduced on a pro-rata basis. In no event will the Purchaser exercise any discretion with respect to the ordering of any reductions of payments or benefits under this Section 8.

(b) ***Determination.*** Unless the Company and the Purchaser otherwise agree in writing, any determination required under this Section 8 shall be made in writing by the Company's independent public accountants or a nationally recognized accounting firm selected by the Company (the "Accountants"), whose determination shall be conclusive and binding upon the Purchaser and the Company for all purposes. For purposes of making the calculations required by this Section 8, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of sections 280G and 4999 of the Code. The Company and the Purchaser shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 8. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 8.

9. Miscellaneous.

(a) ***Rights as Member.*** Subject to the provisions and limitations hereof and of the LLC Agreement, the Stockholders Agreement and the Registration Rights Agreement, the Purchaser may, during the term of this Agreement, exercise all rights and privileges of a Class 1 Member of the Company with respect to the Shares, to the extent the Purchaser continues to hold the Shares as shown by the LLC Agreement.

(b) ***Further Assurances.*** The Purchaser agrees to execute such further instruments and to take such further action as may reasonably be requested by the Company to carry out the intent of this Agreement.

(c) ***Notices.*** Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery, on the date of delivery if sent by nationally recognized overnight delivery service with written or electronic confirmation of delivery, or three days after deposit in the facilities of the United States Postal Service, by certified mail with postage and fees prepaid, addressed to the Purchaser at the Purchaser's address shown on **Exhibit A** hereto and to the Company at the address of its principal corporate offices (attention: Chief Executive Officer) or at such other address as such party may designate by ten days' advance written notice to the other party hereto.

(d) ***Successors and Assigns.*** The Company may assign its rights and delegate its duties under this Agreement, including, without limitation, Section 2 and the Company Purchase Option and Section 4. This Agreement shall inure to the benefit of and be binding on the successors and the assigns of the Company and, subject to the restrictions on transfer herein set forth, inure to the benefit of and be binding on the Purchaser and the Purchaser's heirs, executors, administrators, successors and permitted assigns. The Purchase Right Members are express third party beneficiaries of this Agreement with respect to the Member Purchase Option and all related provisions hereof; *provided, however,* that the Company and the Purchaser may at any time or from time to time amend, modify or waive any provision hereof without the consent or approval of the Purchase Right Members. There are no other third party beneficiaries.

(e) ***Direction to Transfer Shares.*** The Purchaser hereby authorizes and directs the Board to transfer the respective Shares as to which the Member Purchase Option or Company Purchase Option has been exercised from the Purchaser to Purchase Right Members, the Company or its assignees in accordance with the exercise of such options.

(f) ***No Right to Employment, Consulting or Other Position***. Nothing in this Agreement shall affect in any manner whatsoever the right or power of the Company, or a parent or subsidiary of the Company, to terminate the Purchaser's relationship with the Company as a director, officer, employee, consultant, or otherwise, for any reason or for no reason, with or without cause, and the Purchaser shall not, by reason of this Agreement, have any right or claim to employment or continued employment or any other relationship with the Company.

(g) ***Governing Law.*** This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable to contracts to be performed in the State of Delaware.

(h) ***Counterparts.*** This Agreement may be executed in any number of counterparts and by different parties hereto on separate counterparts, each of which counterparts when so executed and delivered, shall be deemed to be an original and all of which counterparts, taken together, shall constitute but one and the same instrument.

(i) ***Headings.*** Section and paragraph headings in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose. Capitalized terms used in this Agreement and defined in the introductory paragraph of, or recitals to, this Agreement shall have the respective meanings provided therein.

(j) ***Severability.*** Any provision of this Agreement that is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition, unenforceability or nonauthorization without invalidating the remaining provisions hereof or affecting the validity, enforceability or legality of such provision in any other jurisdiction.

(k) ***Amendments and Waivers.*** No amendment or waiver of any provision of this Agreement shall in any event be effective unless the same shall be in writing and signed by the party to be charged with enforcement thereof, and any such waiver shall be effective only in the specific instance and for the specific purpose for which given. No failure on the part of a party to exercise, and no delay in exercising, any right under this Agreement shall operate as a waiver thereof. No single or partial exercise of any right under this Agreement shall preclude any other or further exercise thereof or the exercise of any other right.

(l) ***Entire Agreement.*** This Agreement, including the exhibits hereto, the LLC Agreement, the Stockholders Agreement, the Registration Rights Agreement and any other agreement listed on **Exhibit A** hereto constitute the entire agreement between the parties with respect to the subject matter hereof. There are no other written, verbal, express, or implied agreements, understandings, or representations between the parties with respect to the subject matter hereof, except as expressly set forth in this Agreement. The recitals to this Agreement form part of this Agreement.

(m) ***Dispute Resolution***.

(1) ***General.*** The parties agree that any and all disputes, claims or controversies arising out of or relating to this Agreement shall be addressed in good faith negotiations under Section 9(m)(2), and if the matter is not resolved through such negotiations, then on the initiative of any party it shall be submitted to JAMS, or its successor, for mediation in the Borough of Manhattan, New York New York pursuant to Section 9(m)(3), and if the matter is not resolved through such mediation, then on the initiative of any party it shall be submitted for final and binding arbitration pursuant to Section 9(m)(4).

(2) ***Good Faith Negotiations.*** (A) The parties shall attempt in good faith to resolve any dispute, claim or controversy arising out of or relating to this Agreement promptly by negotiation between them. In the case of any party that is a company, the representative of such company in such negotiation shall be an executive who has authority to settle the controversy and who is at a higher level of management than the persons at such company who have direct responsibility for administration of this Agreement. Either party may give the other party written notice of any dispute not resolved in the normal course of business. Within 15 days after delivery of the notice, the receiving party shall submit to the other a written response. The notice and response shall include with reasonable particularity (a) a statement of each party’s position and a summary of arguments supporting that position, and (b) in the case of a company,

the name and title of the executive who will represent that party and of any other person who will accompany such party. Within 30 days after delivery of the notice, the parties to such dispute shall meet at a mutually acceptable time and place.

(B) Unless otherwise agreed in writing by the negotiating parties, the above-described negotiation shall end at the close of the first meeting of the parties described above (the "First Meeting"). The closing of the First Meeting shall not preclude continuing or later negotiations, if desired.

(C) All offers, promises, conduct and statements, whether oral or written, made in the course of the negotiation under this Section 9(m)(2) by any of the parties, their agents, employees, experts and attorneys are confidential, privileged and inadmissible for any purpose, including impeachment, in arbitration or other proceeding involving the parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the negotiation.

(D) At no time prior to the First Meeting shall either side initiate a mediation, arbitration or litigation related to this Agreement, except to pursue a provisional remedy that is authorized by law or by the arbitration rules applicable under Section 9(m)(4) or by agreement of the parties. This limitation is inapplicable to a party with respect to another party who fails to comply with the requirements of Section 9(m)(2) within ten days after notice by one party to such non-complying party of such non-compliance.

(5) All applicable statutes of limitation and defenses based upon the passage of time shall be tolled while the procedures specified in Sections 9(m)(2)(A) and 9(m)(2)(B) are pending and for 15 calendar days thereafter. The parties will take such action, if any, required to effectuate such tolling.

(6) If the matter is not resolved by negotiation pursuant to this Section 9(m)(2), then any party may proceed to mediation of the matter as provided in Section 9(m)(3).

(3) ***Mediation.*** (A) Any party may commence mediation by providing to JAMS and the other party or parties to such dispute, claim or controversy a written request for mediation at a time when permitted by this Section 9(m), which request shall set forth the subject of the dispute, claim or controversy and the relief requested.

(B) The parties will cooperate with JAMS and with one another in selecting a mediator from the JAMS panel of neutrals and in scheduling the mediation proceedings. The parties agree that they will participate in the mediation in good faith and that they will share equally in its costs.

(C) All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the parties, their agents, employees, experts and attorneys, and by the mediator or any JAMS employees, shall be confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation.

(D) Any party involved in a mediation may initiate arbitration with respect to the matters submitted to mediation by filing a written demand for arbitration at any time following the initial mediation session or at any time following 45 days from the date of filing the written request for mediation, whichever occurs first (the "Earliest Initiation Date"). The mediation may continue after the commencement of arbitration if the parties so desire.

(E) At no time prior to the Earliest Initiation Date shall a party involved in a mediation initiate an arbitration or litigation related to this Agreement except to pursue a provisional remedy that is authorized by applicable law or by JAMS Rules or by agreement of the parties. This limitation is inapplicable to a party with respect to an arbitration or litigation against another party who fails to comply with the requirements of Section 9(m)(3)(B) within ten days after notice by any other party to such non-complying party of such non-compliance.

(F) All applicable statutes of limitation and defenses based upon the passage of time shall be tolled until 15 days after the Earliest Initiation Date. The parties will take such action, if any, required to effectuate such tolling.

(4) ***Binding Arbitration.*** (A) The parties agree that any and all disputes, claims or controversies arising out of or relating to this Agreement that are not resolved by good faith negotiations under Section 9(m)(2) or mediation under Section 9(m)(3) shall be submitted for final and binding arbitration pursuant to this Section 9(m)(4) in any forum and form agreed upon by the parties or, in the absence of such an agreement, before a panel of three arbitrators under the auspices of the American Arbitration Association (the "AAA") in the Borough of Manhattan, New York, New York in accordance with the Commercial Arbitration Rules of the AAA, including, but not limited to, the rules and procedures applicable to the selection of arbitrators.

(B) The arbitrators shall be selected in accordance with the Commercial Arbitration Rules of the AAA. Any arbitrators selected shall have expertise in business ownership and management and employment and consulting matters in the human drug industry.

(C) Any party may initiate an arbitration by providing to AAA and the other party or parties to such dispute, claim or controversy a written request for arbitration at a time when permitted by this Section 9(m), which request shall set forth the subject of the dispute, claim or controversy and the relief requested.

(D) The parties will cooperate with the AAA and with one another in the selection of arbitrators and in scheduling the arbitration proceedings. The parties agree that they will participate in the arbitration in good faith and that they will share equally in its costs.

(E) All offers, promises, conduct and statements, whether oral or written, made in the course of the arbitration by any of the parties, their agents, employees, experts and attorneys, and by the arbitrators or any AAA employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the arbitration.

Judgment upon the award rendered by the arbitrators may be entered in any court having jurisdiction thereof.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, or caused this Agreement to be duly executed by an officer or other representative thereunto duly authorized, as of the day and year first above written.

INOZYME PHARMA, LLC

By: _____

_____

[SIGNATURE PAGE TO RESTRICTED STOCK AGREEMENT]

Exhibit A
to
Restricted Stock
Agreement

INOZYME PHARMA, LLC

Name of Purchaser:	Axel Bolte
Date of Agreement:	[ ]
Address:	[ ]
Number of Shares:	[ ] shares of Class 1 Stock
Purchase Price:	$[ ]
Other Consideration:	None
Calculation Date:	[ ]
Closing Location:	Pusch & Gal [Address]
Offices/Positions:	[ ]
Purchase Events:	(1) The Purchaser resigns from all of the Offices/Positions without the Company's consent, other than by reason of death or being Disabled; or (2) The Company terminates the Purchaser from all of the Offices/Positions for Cause. As used in this **Exhibit A,** "Cause" shall mean: (i) the Purchaser's repeated failure, in the reasonable judgment of the Board, substantially to perform his or her assigned duties or responsibilities as a service provider in the Offices/Positions, other than as a member of the Board, as directed or assigned by the Board or the Company's Chairman of the Board (other than a failure resulting from the Purchaser's being disabled), after written notice thereof from the Board to the Purchaser describing in reasonable detail the Purchaser's failure to perform such duties or responsibilities and the Purchaser having had the

opportunity to address the Board, with counsel, regarding such alleged failures and his or her failure to remedy same within 30 days of receiving written notice;

(ii) the Purchaser engaging in knowing and intentional illegal conduct that was or is materially injurious to the Company or its affiliates;

(iii) the Purchaser's willful violation of a federal or state law or regulation directly or indirectly applicable to the business of the Company or its affiliates, which violation was or is reasonably likely to be injurious to the Company or its affiliates;

(iv) the Purchaser's willful and material breach of the terms of any confidentiality agreement or invention assignment agreement between the Purchaser and the Company (or any affiliate of the Company);

(v) the Purchaser being convicted of, or entering a plea of *nolo contendere* to, a felony or committing any act of moral turpitude, dishonesty or fraud against, or the misappropriation of material property belonging to, the Company or its affiliates; or

(vi) to the extent so provided in any employment or consulting agreement between the Company and the Purchaser, any event or circumstance that constitutes "cause" for purposes of such agreement.

For purposes of this definition, no act or failure to act on the part of the Purchaser shall be deemed "willful" unless done, or omitted to be done, by the Purchaser not in good faith or without reasonable belief that the action or omission was in, or not opposed to, the best interests of the Company.

Calculation of Shares Subject to Member Purchase Option and Company Purchase Option:

The total number of Shares that the Purchase Right Members may purchase upon exercise of the Member Purchase Option and that the Company may purchase upon exercise of the Company Purchase Option based on a Purchase Event shall be the product obtained by multiplying the number of Shares originally purchased under this Agreement by

a fraction, the numerator of which shall be a number equal to 36 minus the total number of full calendar months elapsed after the "Calculation Date" specified on this **Exhibit A** to the date of the Purchase Event, and the denominator of which shall be 36.

Purchase Right Members:

Name

Demetrios Braddock
Enrique De La Cruz
Joseph Schlessinger
Chautauqua Corporate Services, LLC

Termination of Purchase Option:

The provision of Section 2 shall terminate as to the Shares at the time subject to the Member Purchase Option and the Company Purchase Option if at or prior to the time of the event or circumstance specified under this heading no Purchase Event shall have occurred, and

(1) the Purchaser's continuous status as a service provider in all the Offices/Positions terminates due to his death or because he becomes Disabled;

(2) the Purchaser's continuous status as a service provider in any of the Offices/Positions terminates due to his discharge by the Company without Cause;

(3) the Purchaser shall cease to serve as a member of the Board due to his removal without cause or because members of the Company fail to re-elect him; or

(4) the Purchaser's continuous status as a service provider in any of the Offices/Positions terminates due to his resignation for "Good Reason" as defined in any employment or consulting agreement between the Company and the Purchaser that is in effect at such time.

For purposes of this **Exhibit A** a person shall be "Disabled" if he or she has a physical or mental

	illness or condition that renders such person unable in any substantial or material respect to perform such person's material responsibilities in the applicable Offices/Positions for a period of 90 days, whether or not consecutive, in any period of 365 consecutive days.
Additional Terms and Provisions:	None

Exhibit 10.13

EXECUTION COPY

LEASE

321 SUMMER STREET LLC,

Landlord,

and

INOZYME PHARMA, INC.,

Tenant

TABLE OF CONTENTS

GROSS (BY)-INS OFFICE LEASE

REFERENCE PAGES

BUILDING:	321 Summer Street, Boston, MA 02210
LANDLORD:	**321 SUMMER STREET LLC**, a Delaware limited liability company
LANDLORD'S ADDRESS:	321 Summer Street LLC c/o RREEF Management, L.L.C. 321 Summer Street, Suite 405 Boston, MA 02210 With a copy to: c/o CB Richard Ellis New England One Main Street Cambridge, MA 02142
WIRE INSTRUCTIONS AND/OR ADDRESS FOR RENT PAYMENT:	*Lockbox*: 321 Summer Street LLC – PCO 48001 P.O. Box 209234 Austin, TX 78720-9234 Wire Transfer: 321 Summer Street, a Property of 321 Summer Street LLC FEIN # [**] JP Morgan Chase ABA – [**] Acct – [**]
LEASE REFERENCE DATE:	**December , 2019**
TENANT:	INOZYME PHARMA, INC., a Delaware corporation
TENANT'S NOTICE ADDRESS:	
(a) As of beginning of Term:	321 Summer Street, Suite 400 Boston, Massachusetts 02210
(b) Prior to beginning of Term (if different):	280 Summer Street Boston, MA 02210

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PREMISES ADDRESS:	321 Summer Street Suite 400 Boston, Massachusetts 02210
PREMISES RENTABLE AREA:	Approximately 8,499 rentable square feet
PREMISES:	That certain premises containing the Premises Rentable Area referenced above and located on the fourth (4th) floor of the Building and approximately as shown on the floor plan attached hereto as Exhibit A.
SCHEDULED COMMENCEMENT DATE:	May 1, 2020, subject to Tenant Delays and Force Majeure Delays (as hereinafter defined).
COMMENCEMENT DATE:	As defined in Section 2.1.
RENT COMMENCEMENT DATE:	Three (3) months following the Commencement Date.
TERM OF LEASE:	Approximately five (5) years and three (3) months beginning on the Commencement Date and ending on the Termination Date.
TERMINATION DATE:	The last day of the sixtieth (60th) full calendar month after the Rent Commencement Date**.**

ANNUAL RENT and MONTHLY INSTALLMENT OF RENT (Article 3):

Period		Annual Rent Per Square Foot	Annual Rent	Monthly Installment of Rent
from	through			
Month 1	Month 12	$ 61.00	$ 518,439.00	$ 43,203.25
Month 13	Month 24	$ 62.22	$ 528,807.78	$ 44,067.32
Month 25	Month 36	$ 63.46	$ 539,346.54	$ 44,945.55
Month 37	Month 48	$ 64.73	$ 550,140.27	$ 45,845.02
Month 49	Month 60	$ 66.02	$ 561,103.98	$ 46,758.67

Month 1 is the period beginning on the Rent Commencement Date and ending at the end of the first (1st) full calendar month thereafter (by way of example only, if the Rent Commencement Date were December 1, 2019, Month 1 would be the period December 1, 2019 through December 31, 2019; if the Rent Commencement Date were December 15, 2019, Month 1 would be the period

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from December 15, 2019 through January 31, 2020). Month 2 is the calendar month period immediately following Month 1; Month 3 is the calendar month following Month 2; and so forth, up to the Termination Date.

The actual dates are to be confirmed pursuant to Section 2.1.

All rental amounts are net of Tenant electricity.

BASE YEAR (EXPENSES):	2020
BASE YEAR (INSURANCE):	2020
BASE YEAR (TAXES):	Taxes for July 1, 2020 to June 30, 2021 (fiscal 2021)
TENANT'S PROPORTIONATE SHARE:	9.353% (8,499/90,870)
SECURITY DEPOSIT:	$129,609.75 in the form of an irrevocable letter of credit; See Article 5
ASSIGNMENT/SUBLETTING FEE:	$1,500.00
AFTER-HOURS HVAC COST:	$75.00 per hour, subject to change at any time.
PARKING	One (1) parking pass at $350.00 per month (See Article 39 Parking)
REAL ESTATE BROKER DUE COMMISSION:	Jones Lang LaSalle and Newmark Knight Frank
TENANT'S NAICS CODE:	001265102
BUILDING BUSINESS HOURS:	Monday through Friday 8:00 a.m. – 6:00 p.m. (excluding Massachusetts state holidays)
AMORTIZATION RATE:	11%

The Reference Pages information is incorporated into and made a part of the Lease. In the event of any conflict between any Reference Pages information and the Lease, the Lease shall control. This Lease includes Exhibits A through D, all of which are made a part of this Lease.

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IN WITNESS WHEREOF, Landlord and Tenant have executed the Lease as of the Lease Reference Date set forth above.

LANDLORD:

321 SUMMER STREET LLC, a Delaware limited liability company

By: /s/ David Crane
Name: David Crane
Title: Vice President

Dated: December 11, 2019

By: /s/ Stephen J. George
Name: Stephen J. George
Title: Managing Director

Dated: December 13, 2019

TENANT:

INOZYME PHARMA, INC., a Delaware corporation

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer

Dated: December 9, 2019

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By this Lease Landlord leases to Tenant and Tenant leases from Landlord the Premises in the Building as set forth and described on the Reference Pages. The Premises are depicted on the floor plan attached hereto as Exhibit A-1, and the Building is located on the Lot legally described on Exhibit A-2. The Reference Pages, including all terms defined thereon, are incorporated as part of this Lease.

1. USE AND RESTRICTIONS ON USE.

1.1 The Premises are to be used solely for general office purposes. Tenant shall not do or permit anything to be done in or about the Premises which will in any way obstruct or interfere with the rights of other tenants or occupants of the Building or injure, annoy, or disturb them, or allow the Premises to be used for any improper, immoral, unlawful, or objectionable purpose, or commit any waste. Tenant shall not do, permit or suffer in, on, or about the Premises the sale of any alcoholic liquor without the written consent of Landlord first obtained. Tenant shall comply with all federal, state and city laws, codes, ordinances, rules and regulations (collectively, "**Regulations**") applicable to the use of the Premises and its occupancy and shall promptly comply with all governmental orders and directions for the correction, prevention and abatement of any violations in the Building or appurtenant land, caused or permitted by, or resulting from the specific use by, Tenant, or in or upon, or in connection with, the Premises, all at Tenant's sole expense. Tenant shall not do or permit anything to be done on or about the Premises or bring or keep anything into the Premises which will in any way increase the rate of, invalidate or prevent the procuring of any insurance protecting against loss or damage to the Building or any of its contents by fire or other casualty or against liability for damage to property or injury to persons in or about the Building or any part thereof. Tenant shall not bring upon the Premises or any portion of the Building or use the Premises or permit the Premises or any portion thereof to be used for the growing, manufacturing, administration, distribution (including without limitation, any retail sales), possession, use or consumption of any cannabis, marijuana or cannabinoid product or compound, regardless of the legality or illegality of the same.

1.2 Tenant shall not, and shall not direct, suffer or permit any of its agents, contractors, employees, licensees or invitees (collectively, the "**Tenant Entities**") to at any time handle, use, manufacture, store or dispose of in or about the Premises or the Building any (collectively "**Hazardous Materials**") flammables, explosives, radioactive materials, hazardous wastes or materials, toxic wastes or materials, or other similar substances, petroleum products or derivatives or any substance subject to regulation by or under any federal, state and local laws and ordinances relating to the protection of the environment or the keeping, use or disposition of environmentally hazardous materials, substances, or wastes, presently in effect or hereafter adopted, all amendments to any of them, and all rules and regulations issued pursuant to any of such laws or ordinances (collectively **"Environmental Laws**"), nor shall Tenant suffer or permit any Hazardous Materials to be used in any manner not fully in compliance with all Environmental Laws, in the Premises or the Building and appurtenant land or allow the environment to become contaminated with any Hazardous Materials. Notwithstanding the foregoing, Tenant may handle, store, use or dispose of products containing small quantities of Hazardous Materials (such as aerosol cans containing insecticides, toner for copiers, paints, paint remover and the like) to the extent customary and necessary for the use of the Premises for general office purposes; *provided that* Tenant shall always handle, store, use, and dispose of any such Hazardous Materials in a safe and lawful manner and never allow such Hazardous Materials to contaminate the Premises, Building and appurtenant land or the environment. Tenant shall protect, defend, indemnify and hold each and all of the Landlord Entities (as defined in Article 301) harmless from and against any and all loss, claims, liability or costs (including court costs and attorney's fees) incurred by reason of any actual or asserted failure of Tenant to fully comply with all applicable Environmental Laws, or the presence, handling, use or disposition in or from the Premises of any

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Hazardous Materials by Tenant or any Tenant Entity (even though permissible under all applicable Environmental Laws or the provisions of this Lease), or by reason of any actual or asserted failure of Tenant to keep, observe, or perform any provision of this Section 1.2.

1.3 Tenant and the Tenant Entities will be entitled to the non-exclusive use of the common areas of the Building as they exist from time to time during the Term, including the parking facilities, subject to Landlord's reasonable rules and regulations regarding such use. However, in no event will Tenant or the Tenant Entities park more vehicles in the parking facilities than the number of parking passes allocated to Tenant in the Reference Pages of this Lease. The foregoing shall not be deemed to provide Tenant with an exclusive right to any parking spaces or any guaranty of the availability of any particular parking spaces or any specific number of parking spaces.

Such rights shall always be subject to the Rules and Regulations set forth in Exhibit D as the same may be reasonably amended by the Landlord from time to time, and such other reasonable rules and regulations from time to time established by Landlord by suitable notice, and to the right of Landlord to designate and change from time to time areas and facilities so to be used, *provided* such designations and changes do not deprive Tenant of the substantive benefits of such areas and facilities.

Not included in the Premises are the ceiling, the floor and all perimeter walls of the space identified in Exhibit A, except the inner surfaces thereof and the perimeter doors and windows. Tenant agrees that Landlord shall have the right to place in the Premises (but in such manner as not unreasonably to interfere with Tenant's use of the Premises or materially alter the Premises) utility lines, telecommunication lines, shafts, pipes and the like, for the use and benefit of Landlord and other tenants in the Building, and to replace and maintain and repair such lines, pipes and the like, in, over and upon the Premises. Such utility lines, pipes and the like, shall not be deemed part of the Premises under this Lease.

1.4 If the Building is being operated in accordance with Green Building Standards, Landlord shall provide bicycle storage racks and may, in its discretion elect to establish preferred parking programs for hybrid and alternative fuel vehicles.

1.5 Tenant shall have the right to Building standard signage on the lobby directory at no charge. Tenant's logo can be installed or applied at Tenant's sole cost only on the glass storefront and not on any common walls. Tenant shall remove such logo at the expiration or earlier termination of the Lease Term.

1.6 Tenant shall have access to the Premises on a 24 hour basis, 365 days per year, subject to the terms of this Lease. Tenant may install an internal security system for the Premises, but such system shall tie into and be compatible with the Building fire alarm system.

2. TERM.

2.1 The Term of this Lease shall begin on the date ("**Commencement Date**") which shall be the Substantial Completion Date (as defined in Exhibit B attached hereto), and shall terminate on the date as shown on the Reference Pages as the Termination Date based on the actual Commencement Date (**"Termination Date**"), unless sooner terminated by the provisions of this Lease. Landlord shall tender possession of the Premises with (i) all HVAC, mechanical, electrical, lighting and life safety systems serving the Building and Premises in good working condition, in good repair, in compliance with all applicable laws, rules and regulations; and (ii) the Landlord's Work to be performed by Landlord pursuant to Exhibit B to this Lease "Substantially Completed" (as such term is defined in Exhibit B), subject to any

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Tenant Delays (as defined in Exhibit B attached hereto). Tenant and Landlord shall conduct a joint walk-through of the Premises and create a punch list of items not completed within thirty (30) days after Landlord tenders possession of the Premises and Landlord agrees to proceed with due diligence to perform its obligations regarding such items. Tenant shall, at Landlord's request, execute and deliver a memorandum agreement provided by Landlord in the form of Exhibit C attached hereto, setting forth the actual Commencement Date, Termination Date and, if necessary, a revised rent schedule. Should Tenant fail to do so within thirty (30) days after Landlord's request, the information set forth in such memorandum provided by Landlord shall be conclusively presumed to be agreed and correct.

2.2 Tenant agrees that in the event of the inability of Landlord to deliver possession of the Premises on the Scheduled Commencement Date for any reason, Landlord shall not be liable for any damage resulting from such inability, but except to the extent such delay is the result of a Tenant Delay, Tenant shall not be liable for any rent until the time when Landlord delivers possession of the Premises to Tenant. Notwithstanding the foregoing, in the event that this Lease is executed and delivered by Tenant to Landlord on or before December 9, 2019 and Landlord has not delivered possession of the Premises to Tenant on or before May 15, 2020 (the "**First Abatement Date**"), Tenant shall be entitled to one-half day of free rent for each day from the First Abatement Date through May 31, 2020 that Landlord fails to deliver possession of the Premises to Tenant (with the accrued free rent to be credited to Tenant in Month 4), provided the First Abatement Date shall be extended on a day for day basis for (a) each day after December 9, 2019 that Tenant has not executed and delivered this Lease to Landlord and (b) for each day in completing the Landlord's Work caused by Tenant Delays or Force Majeure Delays. If this Lease is executed and delivered by Tenant to Landlord on or before December 9, 2019 and Landlord has not delivered possession of the Premises to Tenant on or before June 1, 2020 (the "**Second Abatement Date**"), Tenant shall be entitled to one day of free rent for each day between June 1, 2020 through June 15, 2020 that Landlord fails to deliver possession of the Premises to Tenant (with the accrued free rent to be credited to Tenant in Month 4), provided the Second Abatement Date shall be extended on a day for day basis for (a) each day after December 9, 2019 that Tenant has not executed and delivered this Lease to Landlord and (b) for each day in completing the Landlord's Work caused by Tenant Delays or Force Majeure Delays. If this Lease is executed and delivered by Tenant to Landlord on or before December 9, 2019 and Landlord has not delivered possession of the Premises to Tenant on or before June 16, 2020 (the "**Third Abatement Date**"), Tenant shall be entitled to two days of free rent for each day after June 16, 2020 that Landlord fails to deliver possession of the Premises to Tenant (with the accrued free rent to be credited to Tenant in Month 4), provided the Third Abatement Date shall be extended on a day for day basis for (a) each day after December 9, 2019 that Tenant has not executed and delivered this Lease to Landlord and (b) for each day in completing the Landlord's Work caused by Tenant Delays or Force Majeure Delays. In addition to the foregoing free rent penalty, Tenant shall be entitled to terminate this Lease by providing written notice to Landlord if the Landlord has not delivered possession of the Premises to Tenant on or before August 31, 2019 (the "**Delay Termination Date**") and, if such right is exercised by Tenant, this Lease shall be immediately terminated and Landlord shall promptly turn over all amounts previously paid by Tenant hereunder (including, but not limited to, the Security Deposit), provided the Delay Termination Date shall be extended on a day for day basis for (a) each day after December 9, 2019 that Tenant has not executed and delivered this Lease to Landlord and (b) for each day in completing the Landlord's Work caused by Tenant Delays or Force Majeure Delays. No such failure to give possession on the Scheduled Commencement Date shall affect the other obligations of Tenant under this Lease, except that the actual Commencement Date shall be postponed until the date that Landlord delivers possession of the Premises to Tenant, except to the extent that such delay is arising from or related to a Tenant Delay. If any delay is the result of a Tenant Delay, the Commencement Date and the payment of rent under this Lease shall be accelerated by the number of days of such Tenant Delay.

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2.3 Landlord shall permit Tenant to access the Premises approximately thirty (30) days prior to the Commencement Date for purposes of installation of tel/data cabling and furniture, fixtures and equipment, *provided* such early access shall not interfere with Landlord's Work. Any such early access to the Premises by any agent, employee or contractor of Tenant, prior to the Commencement Date shall be subject to all the provisions of this Lease other than the payment of rent, including, without limitation, Tenant's compliance with the insurance requirements of Article 11. Said early possession shall not advance the Rent Commencement Date or the Termination Date.

3. RENT.

3.1 Tenant agrees to pay to Landlord the Annual Rent in effect from time to time by paying the Monthly Installment of Rent then in effect on or before the first day of each full calendar month during the Term, except that the first full month's rent shall be paid upon the execution of this Lease. The Monthly Installment of Rent in effect at any time shall be one-twelfth (1/12) of the Annual Rent in effect at such time. Rent for any period during the Term which is less than a full month shall be a prorated portion of the Monthly Installment of Rent based upon the number of days in such month. Said rent shall be paid to Landlord, without deduction or offset and without notice or demand, at the Rent Payment Address, as set forth on the Reference Pages, or by ACH or to such other person or at such other place as Landlord may from time to time designate in writing. If an Event of Default occurs, Landlord may require by notice to Tenant that all subsequent rent payments be made by an ACH or wire transfer from Tenant's bank account to Landlord's account, without cost to Landlord. Tenant must implement such automatic payment system prior to the next scheduled rent payment or within ten (10) days after Landlord's notice, whichever is later. Unless specified in this Lease to the contrary, all amounts and sums payable by Tenant to Landlord pursuant to this Lease shall be deemed additional rent.

3.2 Tenant recognizes that late payment of any rent or other sum due under this Lease will result in administrative expense to Landlord, the extent of which additional expense is extremely difficult and economically impractical to ascertain. Tenant therefore agrees that if rent or any other sum is not paid when due and payable pursuant to this Lease, a late charge shall be imposed in the amount that is the greater of: (a) Fifty Dollars ($50.00), or (b) six percent (6%) of the unpaid rent or other payment; *provided*, *however*, the first late payment under this Lease in any calendar year, if timely cured, shall be not be assessed any late charge under this Section 3.2. The amount of the late charge to be paid by Tenant shall be reassessed and added to Tenant's obligation for each successive month until paid. The provisions of this Section 3.2 in no way relieve Tenant of the obligation to pay rent or other payments on or before the date on which they are due, nor do the terms of this Section 3.2 in any way affect Landlord's remedies pursuant to Article 19 of this Lease in the event said rent or other payment is unpaid after date due.

3.3 Tenant hereby acknowledges and agrees that the obligations of Tenant hereunder shall be separate and independent covenants and agreements, that rent shall continue to be payable in all events and that the obligations of Tenant hereunder shall continue unaffected, unless the requirement to pay or perform the same shall have been terminated or abated pursuant to an express provision of this Lease. Landlord and Tenant each acknowledges and agrees that the independent nature of the obligations of Tenant hereunder represents fair, reasonable, and accepted commercial practice with respect to the type of property subject to this Lease. Such acknowledgements by Tenant are a material inducement to Landlord entering into this Lease.

4. RENT ADJUSTMENTS.

4.1 For the purpose of this Article 4, the following terms are defined as follows:

4.1.1 Lease Year: Each fiscal year (as determined by Landlord from time to time) falling partly or wholly within the Term.

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4.1.2 Expenses: All costs of operation, maintenance, repair, replacement and management of the Building (including the amount of any credits which Landlord may grant to particular tenants of the Building in lieu of providing any standard services or paying any standard costs described in this Section 4.1.2 for similar tenants), as determined in accordance with generally accepted accounting principles, including the following costs by way of illustration, but not limitation: costs to obtain and maintain certification for Green Building Standards (excluding capital expenditure retrofitting or replacement costs to conform with certification requirements); water and sewer charges; utility costs, including, but not limited to, the cost of heat, light, power, steam, gas and energy for the Building; waste disposal; recycling costs; the cost of janitorial services; the cost of security and alarm services (including any central station signaling system); costs of cleaning, repairing, replacing and maintaining the common areas, including parking and landscaping, window cleaning costs; labor costs; costs and expenses of managing the Building including management and/or administrative fees; air conditioning maintenance costs; elevator maintenance fees and supplies; material costs; equipment costs including the cost of maintenance, repair and service agreements and rental and leasing costs; purchase costs of equipment; current rental and leasing costs of items which would be capital items if purchased; tool costs; licenses, permits and inspection fees; wages and salaries of employees directly and primarily engaged in the management and operation of the Building; employee benefits and payroll taxes; accounting and legal fees; any sales, use or service taxes incurred in connection therewith. In addition, Landlord shall be entitled to recover, as additional rent (which, along with any other capital expenditures constituting Expenses, Landlord may either include in Expenses or cause to be billed to Tenant along with Expenses and Taxes but as a separate item), Tenant's Proportionate Share of: (a) an allocable portion of the cost of capital improvement items which are reasonably calculated to reduce operating expenses or enhance the environmental sustainability of the Property's operations; (b) the cost of fire sprinklers and suppression systems and other life safety systems and other capital other capital expenses which are required under any Regulations which were not applicable to the Building at the time it was constructed; but the costs described in this sentence shall be amortized over the reasonable life of such the capital item related to each such expenditure in accordance with such reasonable life and amortization schedules as shall be determined by Landlord in accordance with generally accepted accounting principles, with interest on the unamortized amount at one percent (1%) in excess of the Wall Street Journal prime lending rate announced from time to time. Expenses shall not include any of the following: (i) Taxes, (ii) Insurance Costs, (iii) depreciation or amortization of the Building or equipment in the Building except as provided herein, (iv) loan principal payments, (v) costs of alterations of tenants' premises, (vi) leasing commissions, (vii) interest expenses on long-term borrowings or advertising costs, (viii) rental on ground leases or other underlying leases and the costs of providing the same, (ix) any liabilities, costs or expenses associated with or incurred in connection with the removal, enclosure, encapsulation or other handling of hazardous materials and the cost of defending against claims in regard to the existence or release of hazardous materials at the Building (except with respect to those costs for which Tenant is otherwise responsible pursuant to the express terms of this Lease), (x) costs of any items for which Landlord is or is entitled to be paid or reimbursed by insurance, (xi) charges for electricity, water, or other utilities, services or goods and applicable taxes for which Tenant or any other tenant, occupant, person or other party is obligated to reimburse Landlord or to pay to third parties, (xii) cost of any HVAC, janitorial or other services provided to tenants on an extra cost basis after regular business hours, (xiii) the cost of installing, operating and maintaining any specialty service, such as a cafeteria, observatory, broadcasting facilities, child or daycare (but the parties agree that upon the introduction of any such service the Base Year (Expenses) shall be increased to include the first year's annual costs of such services), (xiv) cost of correcting defects in the design, construction or equipment of, or latent defects in, the Building, (xv) cost

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of any work or service performed on an extra cost basis for any tenant in the Building to a materially greater extent or in a materially more favorable manner than furnished generally to the tenants and other occupants, (xvi) cost of any work or services performed for any facility other than the Building, (xvii) any cost representing an amount paid to a person firm, corporation or other entity related to Landlord that is in excess of the amount which would have been paid in the absence of such relationship, (xviii) cost of initial cleaning and rubbish removal from the Building to be performed before final completion of the Building or Premises, (xix) except as expressly provided above, cost of any item that, under generally accepted accounting principles, are properly classified as capital expenses, (xx) lease payments for rental equipment (other than equipment for which depreciation is properly charged as an expense) that would constitute a capital expenditure if the equipment were purchased, (xxi) cost of the initial stock of tools and equipment for operation, repair and maintenance of the Building, (xxiii) late fees or charges incurred by Landlord due to late payment of expenses, except to the extent attributable to Tenant's actions or inactions, (xxiii) cost of acquiring, securing cleaning or maintaining sculptures, paintings and other works of art, (xxiv) real estate taxes or taxes on Landlord's business (such as income, excess profits, franchise, capital stock, estate, inheritance, etc.), (xxv)direct costs or allocable costs (such as real estate taxes) associated with parking operations if there is a separate charge to Tenant, other than tenants or the public for parking, (xxvi) charitable or political contributions, (xxvii) reserve funds, (xxiii) all other items for which another party compensates or pays so that Landlord shall not recover any item of cost more than once, (xxix) any cost associated with operating as an on or off-site management office for the Building, except to the extent included in the management fee permitted hereby, (xxx) Landlord's general overhead and any other expenses not directly attributable to the operation and management of the Building (*e.g.* the activities of Landlord's officers and executives or professional development expenditures), except to the extent included in the management fee permitted hereby, (xxxi) costs and expenses incurred in connection with compliance with or contesting or settlement of any claimed violation of law or requirements of law, except to the extent attributable to Tenant's actions or inactions, and/or (xxxii) costs of mitigation or impact fees or subsidies (however characterized), imposed or incurred prior to the date of the Lease or imposed or incurred solely as a result of another tenant's or tenants' use of the Building or their respective premises.

4.1.3 Taxes: Real estate taxes and any other taxes, charges and assessments which are levied with respect to the Building or the land appurtenant to the Building, or with respect to any improvements, fixtures and equipment or other property of Landlord, real or personal, located in the Building and used in connection with the operation of the Building and said land, any payments to any ground lessor in reimbursement of tax payments made by such lessor; and all fees, expenses and costs incurred by Landlord in investigating, protesting, contesting or in any way seeking to reduce or avoid increase in any assessments, levies or the tax rate pertaining to any Taxes to be paid by Landlord in any Lease Year. Taxes shall be determined without regard to any "green building" credit and shall not include any corporate franchise, or estate, inheritance or net income tax, or documentary transfer tax imposed upon any transfer by Landlord of its interest in this Lease or the Building or any taxes to be paid by Tenant pursuant to Article 28.

4.1.4 Insurance Costs: Any and all insurance charges of or relating to all insurance policies and endorsements deemed by Landlord to be reasonably necessary or desirable and relating in any manner to the protection, preservation, or operation of the Building or any part thereof.

4.2 If in any Lease Year, (i) Expenses paid or incurred shall exceed Expenses paid or incurred in the Base Year (Expenses) and/or (ii) Taxes paid or incurred by Landlord in any Lease Year shall exceed the amount of such Taxes which became due and payable in the Base Year (Taxes), and/or (iii) Insurance Costs paid or incurred by Landlord in any Lease Year shall exceed the amount of such Insurance Costs which became due and payable in the Base Year (Insurance), Tenant shall pay as additional rent for such Lease Year Tenant's Proportionate Share of each such excess amount.

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4.3 The annual determination of Expenses and Insurance Costs shall be made by Landlord and shall be binding upon Landlord and Tenant, subject to the provisions of this Section 4.3. Landlord may deliver such annual determination to Tenant via regular U.S. mail. During the Term, Tenant may review, at Tenant's sole cost and expense, the books and records supporting such determination in an office of Landlord, or Landlord's agent, during normal business hours, upon giving Landlord five (5) days advance written notice within one hundred twenty (120) days after receipt of such determination, but in no event more often than once in any one (1) year period, subject to execution of a confidentiality agreement acceptable to Landlord, and *provided that* if Tenant utilizes an independent accountant to perform such review who is acceptable to Landlord in the exercise of its reasonable discretion (which determination shall be made by Landlord within ten (10) business days after request), is not compensated on a contingency basis and is also subject to such confidentiality agreement. If Tenant fails to object to Landlord's determination of Expenses and Insurance Costs within one hundred eighty (180) days after receipt, or if any such objection fails to state with specificity the reason for the objection, Tenant shall be deemed to have approved such determination and shall have no further right to object to or contest such determination. In the event that during all or any portion of any Lease Year or Base Year, the Building is not fully rented and occupied Landlord shall make an appropriate adjustment in occupancy-related Expenses for such year for the purpose of avoiding distortion of the amount of such Expenses to be attributed to Tenant by reason of variation in total occupancy of the Building, by employing consistent and sound accounting and management principles to determine Expenses that would have been paid or incurred by Landlord had the Building been ninety-five percent (95%) rented and occupied, and the amount so determined shall be deemed to have been Expenses for such Lease Year.

4.4 Prior to the actual determination thereof for a Lease Year, Landlord may from time to time estimate Tenant's liability for Expenses, Insurance Costs and/or Taxes under Section 4.2, Article 6 and Article 28 for the Lease Year or portion thereof. Landlord will give Tenant written notification of the amount of such estimate and Tenant agrees that it will pay, by increase of its Monthly Installments of Rent due in such Lease Year, additional rent in the amount of such estimate. Any such increased rate of Monthly Installments of Rent pursuant to this Section 4.4 shall remain in effect until further written notification to Tenant pursuant hereto.

4.5 When the above mentioned actual determination of Tenant's liability for Expenses, Insurance Costs and/or Taxes is made for any Lease Year and when Tenant is so notified in writing, then:

4.5.1 If the total additional rent Tenant actually paid pursuant to Section 4.3 on account of Expenses, Insurance Costs and/or Taxes for the Lease Year is less than Tenant's liability for Expenses, Insurance Costs and/or Taxes, then Tenant shall pay such deficiency to Landlord as additional rent in one lump sum within thirty (30) days of receipt of Landlord's bill therefor; and

4.5.2 If the total additional rent Tenant actually paid pursuant to Section 4.3 on account of Expenses, Insurance Costs and/or Taxes for the Lease Year is more than Tenant's liability for Expenses, Insurance Costs and/or Taxes, then Landlord shall credit the difference against the then next due payments to be made by Tenant under this Article 4, or, if the Lease has terminated, refund the difference in cash. Tenant shall not be entitled to a credit by reason of actual Expenses and/or Taxes and/or Insurance Costs in any Lease Year being less than Expenses and/or Taxes and/or Insurance Costs in the Base Year (Expenses and/or Taxes and/or Insurance).

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4.6 If the Commencement Date is other than January 1 or if the Termination Date is other than December 31, Tenant's liability for Expenses, Insurance Costs and Taxes for the Lease Year in which said Date occurs shall be prorated based upon a three hundred sixty-five (365) day year.

5. SECURITY DEPOSIT.

5.1 Tenant shall deposit the Security Deposit with Landlord upon the execution of this Lease. Said sum shall be held by Landlord as security for the faithful performance by Tenant of all the terms, covenants and conditions of this Lease to be kept and performed by Tenant and not as an advance rental deposit or as a measure of Landlord's damage in case of Tenant's default. If Tenant defaults with respect to any provision of this Lease, Landlord may use any part of the Security Deposit for the payment of any rent or any other sum in default, or for the payment of any amount which Landlord may spend or become obligated to spend by reason of Tenant's default, or to compensate Landlord for any other loss or damage which Landlord may suffer by reason of Tenant's default. If any portion is so used, Tenant shall within ten (10) days after written demand therefor, deposit with Landlord an amount sufficient to restore the Security Deposit to its original amount and Tenant's failure to do so shall be a material breach of this Lease. Except to such extent, if any, as shall be required by law, Landlord shall not be required to keep the Security Deposit separate from its general funds, and Tenant shall not be entitled to interest on such deposit. If Tenant shall fully and faithfully perform every provision of this Lease to be performed by it, the Security Deposit or any balance thereof shall be returned to Tenant at such time after termination of this Lease when Landlord shall have determined that all of Tenant's obligations under this Lease have been fulfilled.

5.2 The required Security Deposit shall be provided in cash or in the form of an Irrevocable Standby Letter of Credit in favor of Landlord (the "**letter of credit**") in the amount set forth on the Reference Pages. Under any circumstance under which Landlord is entitled the use of all or a part of the Security Deposit, then, Landlord, in addition to all other rights and remedies provided under the Lease, shall have the right to draw down all or a portion of the full balance of the letter of credit and retain the proceeds. The following terms and conditions shall govern the letter of credit:

5.2.1 Upon expiration of the Term, the letter of credit shall be returned to Tenant when Tenant is entitled to return of its Security Deposit.

5.2.2 The letter of credit shall be in favor of Landlord, shall be issued by a commercial bank reasonably acceptable to Landlord, shall comply with all of the terms and conditions of this Section 5.2 and shall otherwise be in form reasonably acceptable to Landlord. Without limiting the generality of the foregoing, (i) the letter of credit must provide for all notices to the beneficiary to be sent simultaneously to up to two (2) addressees specified in the letter of credit, and (ii) there shall be no requirement of signature guaranty for draws, assignments or other documentary action to be taken by the beneficiary. If, at any time while the letter of credit is outstanding, (i) the issuing bank is declared insolvent or taken into receivership by the Federal Deposit Insurance Corporation or any other governmental agency, or is closed for any reason, or (ii) Landlord reasonably believes that the issuing bank may be or become insolvent or otherwise unable to meet its obligations, then, not later than thirty (30) days after written notice from Landlord, Tenant shall cause the existing letter of credit to be replaced by a new letter of credit issued by another commercial bank reasonably acceptable to Landlord, with such new letter of credit to comply with all of the terms and conditions of this Section 5.2. If Tenant fails to deliver an acceptable replacement letter of credit within such 30 day period, Landlord shall have the right to present the existing letter of credit to the issuing bank for payment, and the entire sum so obtained shall be paid to Landlord, to be held by Landlord until Tenant would otherwise be entitled to the return of the letter of credit, and to be retained by Landlord if a default occurs.

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5.2.3 The initial letter of credit shall have an expiration date not earlier than fifteen (15) months after the Commencement Date. A draft of the form of letter of credit must be submitted to Landlord for its approval prior to issuance.

5.2.4 The letter of credit or any replacement letter of credit shall be irrevocable for the term thereof and shall automatically renew on a year to year basis until a period ending not earlier than 45 days after the Termination Date ("**End Date**") without any action whatsoever on the part of Landlord; *provided that* the issuing bank shall have the right not to renew the letter of credit by giving written notice to Landlord not less than sixty (60) days prior to the expiration of the then current term of the letter of credit that it does not intend to renew the letter of credit. Tenant understands that the election by the issuing bank not to renew the letter of credit shall not, in any event, diminish the obligation of Tenant to maintain such an irrevocable letter of credit in favor of Landlord through such date.

5.2.5 Landlord, or its then managing agent, shall have the right from time to time to make one or more draws on the letter of credit at any time that Landlord has the right to use all or a part of the Security Deposit pursuant to Article 5 of this Lease, and the proceeds may be applied as permitted under said Article 5. The letter of credit must state that it can be presented for payment at the office of the issuer or an approved correspondent in the metropolitan area in which the Building is located. Funds may be drawn down on the letter of credit upon presentation to the issuing or corresponding bank of Landlord's (or Landlord's then managing agent's) certificate stating as follows:

> "Beneficiary is entitled to draw on this credit pursuant to that certain Lease dated for reference between 321 SUMMER STREET LLC, a Delaware limited liability company, as Landlord and , a , as Tenant, as amended from time to time."

It is understood that if Landlord or its managing agent be a corporation, partnership or other entity, then such statement shall be signed by an officer (if a corporation), a general partner (if a partnership), or any authorized party (if another entity).

5.2.6 Tenant acknowledges and agrees (and the letter of credit shall so state) that the letter of credit shall be honored by the issuing bank without inquiry as to the truth of the statements set forth in such draw request and regardless of whether the Tenant disputes the content of such statement.

5.2.7 In the event of a transfer of Landlord's interest in the Premises, Landlord shall have the right to transfer the letter of credit to the transferee and Tenant shall take whatever action and pay any bank fees necessary to effectuate such transfer and thereupon the Landlord shall, without any further agreement between the parties, be released by Tenant from all liability therefor, and it is agreed that the provisions hereof shall apply to every transfer or assignment of said letter of credit to a new landlord.

5.2.8 Without limiting the generality of the foregoing, if the letter of credit expires earlier than the End Date, or the issuing bank notifies Landlord that it will not renew the letter of credit, Landlord shall accept a renewal thereof or substitute letter credit (such renewal or substitute letter of credit to be in effect not later than thirty (30) days prior to the expiration of the expiring letter of credit), irrevocable and automatically renewable as above provided to the End Date upon the same terms as the expiring letter of credit or upon such other terms as may be acceptable to Landlord. However, if (i) the letter of credit is not timely renewed, or (ii) a substitute letter of credit, complying with all of the terms and conditions of this Section is not timely received, then Landlord may present the expiring letter of

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credit to the issuing bank, and the entire sum so obtained shall be paid to Landlord, to be held by Landlord in accordance with Article 5 of the Lease. Notwithstanding the foregoing, Landlord shall be entitled to receive from Tenant a fee in an amount not to exceed $500.00 for attorneys' fees incurred in connection with the review of any proposed substitute letter of credit pursuant to this subparagraph.

5.2.9 Provided that (i) no uncured monetary default exists as of the date that is twenty-four (24) full calendar months after the Rent Commencement Date (the "**Reduction Date**"), and (ii) in the twelve (12) month period preceding the Reduction Date not more than one (1) monetary default has occurred, whether or not cured, then, as of the Reduction Date, Landlord shall permit the amount of the letter of credit to be reduced to (or a replacement letter of credit may be issued in the amount of) $86,406.50. If Tenant is unable to satisfy any of the foregoing conditions as of the Reduction Date (whether the initial or any amended Reduction Date), then (i) the Reduction Date shall be amended to be twelve (12) months after the then current Reduction Date, and (ii) the reference to 24 full calendar months after the Rent Commencement Date shall be deemed to refer to the 24 full calendar months prior to the Reduction Date, provided in all events such amendment of the Reduction Date and the reduction of the amount of the letter of credit shall be a one-time reduction.

6. ALTERATIONS.

6.1 Except for those, if any, specifically provided for in Exhibit B to this Lease, Tenant shall not make or suffer to be made any alterations, additions, or improvements, including, but not limited to, the attachment of any fixtures or equipment in, on, or to the Premises or any part thereof or the making of any improvements as required by Article 7, without the prior written consent of Landlord. When applying for such consent, Tenant shall, if requested by Landlord, furnish complete plans and specifications for such alterations, additions and improvements. Landlord's consent shall not be unreasonably withheld, conditioned or delayed and Tenant shall not be required to furnish complete plans and specifications with respect to alterations which (i) are not structural in nature, (ii) are not visible from the exterior of the Building, (iii) do not affect or require modification of the Building's electrical, mechanical, plumbing, HVAC or other systems, and (iv) in aggregate do not cost more than $7.00 per rentable square foot of that portion of the Premises affected by the alterations in question.

6.2 In the event Landlord consents to the making of any such alteration, addition or improvement by Tenant, the same shall be made by using either Landlord's contractor or a contractor reasonably approved by Landlord, in either event at Tenant's sole cost and expense. If Tenant shall employ any contractor other than Landlord's contractor and such other contractor or any subcontractor of such other contractor shall employ any non-union labor or supplier, Tenant shall be responsible for and hold Landlord harmless from any and all delays, damages and extra costs suffered by Landlord as a result of any dispute with any labor unions concerning the wage, hours, terms or conditions of the employment of any such labor. In any event, for any work that involves mechanical, electrical, plumbing or sprinkler trades, Landlord may charge Tenant a construction management fee not to exceed two and one-half percent (2.5%) of the cost of any such work that involves material alterations to cover its overhead as it relates to such proposed work, plus third-party costs actually incurred by Landlord in connection with the proposed work and the design thereof, with all such amounts being due ten (10) business days after Landlord's demand.

6.3 All alterations, additions or improvements proposed by Tenant shall be constructed in accordance with all Regulations and with Landlord's Building construction standards (if any) from time to time to the extent applicable (which standards shall be made available to Tenant by Landlord's Building manager upon request). Tenant shall use Building standard materials where applicable, and Tenant shall,

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prior to construction, provide the additional insurance required under Article 11 in such case, and also all such assurances to Landlord as Landlord shall reasonably require to assure payment of the costs thereof, including but not limited to, notices of non-responsibility, waivers of lien, surety company performance bonds and funded construction escrows and to protect Landlord and the Building and appurtenant land against any loss from any mechanic's, materialmen's or other liens. Tenant shall pay in addition to any sums due pursuant to Article 4, any increase in real estate taxes attributable to any such alteration, addition or improvement for so long, during the Term, as such increase is ascertainable; at Landlord's election said sums shall be paid in the same way as sums due under Article 4. Landlord may, as a condition to its consent to any particular alterations or improvements, require Tenant to deposit with Landlord the amount reasonably estimated by Landlord as sufficient to cover the cost of removing such alterations or improvements and restoring the Premises, to the extent required under Section 26.2.

7. REPAIR.

7.1 Landlord shall have no obligation to alter, remodel, improve, repair, decorate or paint the Premises, except as specified in Exhibit B attached to this Lease and except that Landlord shall repair and maintain the structural portions of the Building, including the basic plumbing, air conditioning, heating and electrical systems installed or furnished by Landlord. By taking possession of the Premises, Tenant accepts them as being in good order, condition and repair and in the condition in which Landlord is obligated to deliver them, except for latent defects or as set forth in the punch list to be delivered pursuant to Section 2.1. It is hereby understood and agreed that no representations respecting the condition of the Premises or the Building have been made by Landlord to Tenant, except as specifically set forth in this Lease.

7.2 Tenant shall, at all times during the Term, keep the Premises in good condition and repair excepting damage by fire, or other casualty, and in compliance with all Regulations promptly complying with all governmental orders and directives for the correction, prevention and abatement of any violations or nuisances in or upon, or connected with, the Premises, all at Tenant's sole expense. Repair and maintenance work shall be undertaken in compliance with Landlord's Building construction standards (if any) from time to time to the extent applicable (which standards shall be made available to Tenant by Landlord's Building manager upon request).

7.3 Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after written notice of the need of such repairs or maintenance is given to Landlord by Tenant; *provided however*, if Landlord fails to make any repairs that materially impair Tenant's ability to make full use of the Premises within twenty-five (25) days after written notice of the need for such repairs is given to Landlord by Tenant and it is within Landlord's control to make such repairs, Tenant shall be entitled to an abatement of Annual Rent until such repairs are completed by Landlord in proportion to the extent that Tenant's ability to use the Premises is materially impaired.

7.4 Except as provided in Section 7.3 or Article 22, there shall be no abatement of rent and no liability of Landlord by reason of any injury to or interference with Tenant's business arising from the making of any repairs, alterations or improvements in or to any portion of the Building or the Premises or to fixtures, appurtenances and equipment in the Building. Except to the extent, if any, prohibited by law, Tenant waives the right to make repairs at Landlord's expense under any law, statute or ordinance now or hereafter in effect.

8. LIENS. Tenant shall keep the Premises, the Building and appurtenant land and Tenant's leasehold interest in the Premises free from any liens arising out of any services, work or materials

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performed, furnished, or contracted for by Tenant, or obligations incurred by Tenant. In the event that Tenant fails, within ten (10) days following the imposition of any such lien, to either cause the same to be released of record or provide Landlord with insurance against the same issued by a major title insurance company or such other protection against the same as Landlord shall accept (such failure to constitute an Event of Default), Landlord shall have the right to cause the same to be released by such means as it shall deem proper, including payment of the claim giving rise to such lien. All such sums paid by Landlord and all expenses incurred by it in connection therewith shall be payable to it by Tenant within five (5) days of Landlord's demand .

9. ASSIGNMENT AND SUBLETTING.

9.1 Except as otherwise provided by this Section 9, Tenant shall not have the right to assign or pledge this Lease or to sublet the whole or any part of the Premises whether voluntarily or by operation of law, or permit the use or occupancy of the Premises by anyone other than Tenant, and shall not make, suffer or permit such assignment, subleasing or occupancy without the prior written consent of Landlord, such consent not to be unreasonably withheld, conditioned or delayed and said restrictions shall be binding upon any and all assignees of this Lease and subtenants of the Premises. In the event Tenant desires to sublet, or permit such occupancy of, the Premises, or any portion thereof, or assign this Lease, Tenant shall give written notice thereof to Landlord at least twenty (20) days but no more than forty-five (45) days prior to the proposed commencement date of such subletting or assignment, which notice shall set forth the name of the proposed subtenant or assignee, the relevant terms of any sublease or assignment and copies of financial reports and other relevant financial information of the proposed subtenant or assignee reasonably requested by Landlord.

9.2 Notwithstanding any assignment or subletting, permitted or otherwise, Tenant shall at all times remain directly, primarily and fully responsible and liable for the payment of the rent specified in this Lease and for compliance with all of its other obligations under the terms, provisions and covenants of this Lease. Upon the occurrence of an Event of Default, if the Premises or any part of them are then assigned or sublet, Landlord, in addition to any other remedies provided in this Lease or provided by law, may, at its option, collect directly from such assignee or subtenant all rents due and becoming due to Tenant under such assignment or sublease and apply such rent against any sums due to Landlord from Tenant under this Lease, and no such collection shall be construed to constitute a novation or release of Tenant from the further performance of Tenant's obligations under this Lease.

9.3 In addition to Landlord's right to approve of any subtenant or assignee, Landlord shall have the option, in its sole discretion, in the event of any proposed subletting of more than twenty-five percent (25%) of the Premises for the remainder of the Term or assignment, to terminate this Lease, or in the case of a proposed subletting of less than the entire Premises (but more than twenty-five percent (25%) of the Premises for the remainder of the Term), to recapture the portion of the Premises to be sublet, as of the date the subletting or assignment is to be effective. The option shall be exercised, if at all, by Landlord giving Tenant written notice given by Landlord to Tenant within twenty (20) days following Landlord's receipt of Tenant's written notice as required above. However, if Tenant notifies Landlord, within five (5) days after receipt of Landlord's termination notice, that Tenant is rescinding its proposed assignment or sublease, the termination notice shall be void and this Lease shall continue in full force and effect. If this Lease shall be terminated with respect to the entire Premises pursuant to this Section, the Term of this Lease shall end on the date stated in Tenant's notice as the effective date of the sublease or assignment as if that date had been originally fixed in this Lease for the expiration of the Term. If Landlord recaptures under this Section only a portion of the Premises, the rent to be paid from time to time during the unexpired Term shall abate proportionately based on the proportion by which the approximate square footage of the

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remaining portion of the Premises shall be less than that of the Premises as of the date immediately prior to such recapture. Tenant shall, at Tenant's own cost and expense, discharge in full any outstanding commission obligation which may be due and owing as a result of any proposed assignment or subletting, whether or not the Premises are recaptured pursuant to this Section 9.3 and rented by Landlord to the proposed tenant or any other tenant.

9.4 In the event that Tenant sells, sublets, assigns or transfers this Lease, Tenant shall pay to Landlord as additional rent an amount equal to fifty percent (50%) of any Increased Rent (as defined below), less the Costs Component (as defined below), when and as such Increased Rent is received by Tenant. As used in this Section, "**Increased Rent**" shall mean the excess of (i) all rent and other consideration which Tenant is entitled to receive by reason of any sale, sublease, assignment or other transfer of this Lease, over (ii) the rent otherwise payable by Tenant under this Lease at such time. For purposes of the foregoing, any consideration received by Tenant in form other than cash shall be valued at its fair market value as determined by Landlord in good faith. The "**Costs Component**" is that amount which, if paid monthly, would fully amortize on a straight-line basis, over the entire period for which Tenant is to receive Increased Rent, the actual costs incurred by Tenant for leasing commissions, legal fees and tenant improvements in connection with such sublease, assignment or other transfer.

9.5 Notwithstanding any other provision hereof, it shall be considered reasonable for Landlord to withhold its consent to any assignment of this Lease or sublease of any portion of the Premises if at the time of either Tenant's notice of the proposed assignment or sublease or the proposed commencement date thereof, there shall exist any uncured default of Tenant or matter which will become a default of Tenant with passage of time unless cured, or if the proposed assignee or sublessee is an entity: (a) with which Landlord is already in active negotiation (trading proposals within the last 6 months); (b) is already an occupant of the Building unless Landlord is unable to provide the amount of space required by such occupant; (c) is a governmental agency; (d) is incompatible with the character of occupancy of the Building as determined by Landlord in its reasonable discretion; (e) with which the payment for the sublease or assignment is determined in whole or in part based upon its net income or profits; or (f) would subject the Premises to a use which would: (i) involve increased wear upon the Building; (ii) violate any exclusive right granted to another tenant of the Building; (iii) require any addition to or modification of the Premises or the Building in order to comply with building code or other governmental requirements; or, (iv) involve a violation of Section 1.2; or (v) shall, in Landlord's reasonable opinion, cause the Building or any part thereof to be in material non-compliance with Landlord's sustainability practices and/or the "green building" certification or rating obtained, or in the process of being obtained by Landlord for the Building. Tenant expressly agrees that for the purposes of any statutory or other requirement of reasonableness on the part of Landlord, Landlord's refusal to consent to any assignment or sublease for any of the reasons described in this Section 9.5, shall be conclusively deemed to be reasonable.

9.6 Upon any request to assign or sublet, Tenant will pay to Landlord the Assignment/Subletting Fee plus, on demand, a sum equal to all of Landlord's costs, including reasonable and actual attorney's fees, incurred in investigating and considering any proposed or purported assignment or pledge of this Lease or sublease of any of the Premises, regardless of whether Landlord shall consent to, refuse consent, or determine that Landlord's consent is not required for, such assignment, pledge or sublease, which total sum (including the Assignment/Subletting Fee) shall not exceed $5,000. Any purported sale, assignment, mortgage, transfer of this Lease or subletting which does not comply with the provisions of this Article 9 shall be void.

9.7 If Tenant is a corporation, limited liability company, partnership or trust, any transfer or transfers of or change or changes within any twelve (12) month period in the number of the outstanding

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voting shares of the corporation or limited liability company, the general partnership interests in the partnership or the identity of the persons or entities controlling the activities of such partnership or trust resulting in the persons or entities owning or controlling a majority of such shares, partnership interests or activities of such partnership or trust at the beginning of such period no longer having such ownership or control shall be regarded as equivalent to an assignment of this Lease to the persons or entities acquiring such ownership or control and shall be subject to all the provisions of this Article 9 to the same extent and for all intents and purposes as though such an assignment; *provided however*, the sale or transfer of a controlling interest of Tenant's capital stock in a transaction or series of related transaction the intent of which is to finance Tenant's ongoing business and operations and the acquirer(s) of which are professional investors who typically invest in companies of the same type and kind as Tenant shall not be deemed an assignment or sublease hereunder.

9.8 Notwithstanding anything herein to the contrary, Tenant may, without the requirement of obtaining Landlord's consent, assign this Lease or sublease any portion of the Premises to any entity which controls, is controlled by or under common control with Tenant (an "**Affiliate**") or assign this Lease to any entity with which Tenant may merge or consolidate or to which Tenant may sell all or substantially all of its assets or equity interests (each, a "**Transfer**"), *provided that* all of the following conditions are satisfied: (a) there must not be an uncured Event of Default at the time of the Transfer; (b) the successor entity (or Tenant if Tenant is the surviving entity) shall have a net worth following the Transfer that is equal to or better than the net worth of Tenant during the 12 months immediately prior to the Transfer; and (c) Tenant must give Landlord written notice at least ten (10) business days before such Transfer; *provided, however*, that if the Transfer is subject to a nondisclosure or confidentiality agreement, then Tenant will notify Landlord within five (5) business days following the Transfer. A Transfer that satisfies all of such conditions is a "**Permitted Transfer**." Tenant's notice to Landlord shall include information and documentation reasonably evidencing that the Transfer qualifies as a Permitted Transfer hereunder and that each of the above conditions has been satisfied. If requested by Landlord, Tenant's successor shall sign and deliver to Landlord a commercially reasonable form of assumption agreement.. Any right of Landlord to terminate this Lease or recapture the Premises, as set forth in Section 9.3, or receive any amounts set forth in Section 9.5 hereunder shall not apply to a Permitted Transfer.

10. INDEMNIFICATION. None of the Landlord Entities shall be liable and Tenant hereby waives all claims against them for any damage to any property or any injury to any person in or about the Premises or the Building by or from any cause whatsoever (including without limiting the foregoing, rain or water leakage of any character from the roof, windows, walls, basement, pipes, plumbing works or appliances, the Building not being in good condition or repair, gas, fire, oil, electricity or theft), except to the extent prohibited by law or caused by or arising from the gross negligence or willful misconduct of Landlord or its agents, employees or contractors. Tenant shall protect, indemnify and hold the Landlord Entities harmless from and against any and all loss, claims, liability or costs (including court costs and attorney's fees) incurred by reason of (a) any damage to any property (including but not limited to property of any Landlord Entity) or any injury (including but not limited to death) to any person occurring in, on or about the Premises or the Building to the extent that such injury or damage shall be caused by or arise from any actual or alleged act, neglect, fault, or omission by or of Tenant or any Tenant Entity to meet any standards imposed by any duty with respect to the injury or damage; (b) the conduct or management of any work or thing whatsoever done by the Tenant in or about the Premises or from transactions of the Tenant concerning the Premises; (c) Tenant's actual or asserted failure to comply with any and all Regulations applicable to the condition or use of the Premises or its occupancy; or (d) any breach or default on the part of Tenant in the performance of any covenant or agreement on the part of the Tenant to be performed pursuant to this Lease. The provisions of this Article shall survive the termination of this Lease with respect to any claims or liability accruing prior to such termination.

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11. INSURANCE.

11.1 Tenant shall keep in force throughout the Term: (a) a Commercial General Liability insurance policy or policies to protect the Landlord Entities against any liability to the public or to any invitee of Tenant or a Landlord Entity incidental to the use of or resulting from any accident occurring in or upon the Premises with a limit of not less than $1,000,000.00 per occurrence and not less than $2,000,000.00 in the annual aggregate, or such larger amount as Landlord may prudently require from time to time, covering bodily injury and property damage liability and $1,000,000 products/completed operations aggregate; (b) Business Auto Liability covering owned, non-owned and hired vehicles with a limit of not less than $1,000,000 per accident; (c) Worker's Compensation Insurance with limits as required by statute and Employers Liability with limits of $500,000 each accident, $500,000 disease policy limit, $500,000 disease—each employee; (d) All Risk or Special Form coverage protecting Tenant against loss of or damage to Tenant's alterations, additions, improvements, carpeting, floor coverings, panelings, decorations, fixtures, inventory and other business personal property situated in or about the Premises to the full replacement value of the property so insured; and, (e) Business Interruption Insurance with limit of liability representing loss of at least approximately six (6) months of income.

11.2 The aforesaid policies shall (a) be provided at Tenant's expense; (b) name the Landlord Entities as additional insureds (General Liability) and loss payee (Property—Special Form); (c) be issued by an insurance company with a minimum Best's rating of "A-:VII" during the Term; and (d) provide that said insurance shall not be canceled unless thirty (30) days prior written notice (ten days for non-payment of premium) shall have been given to Landlord; a certificate of Liability insurance on ACORD Form 25 and a certificate of Property insurance on ACORD Form 28 shall be delivered to Landlord by Tenant upon the Commencement Date and at least thirty (30) days prior to each renewal of said insurance.

11.3 Whenever Tenant shall undertake any alterations, additions or improvements in, to or about the Premises ("**Work**") the aforesaid insurance protection must extend to and include injuries to persons and damage to property arising in connection with such Work, without limitation including liability under any applicable structural work act, and such other insurance as Landlord shall require; and the policies of or certificates evidencing such insurance must be delivered to Landlord prior to the commencement of any such Work.

12. WAIVER OF SUBROGATION. Tenant and Landlord hereby mutually waive their respective rights of recovery against each other for any loss insured (or required to be insured pursuant to this Lease) by fire, extended coverage, All Risks or other insurance now or hereafter existing for the benefit of the respective party but only to the extent of the net insurance proceeds payable under such policies. Each party shall obtain any special endorsements required by their insurer to evidence compliance with the aforementioned waiver.

13. SERVICES AND UTILITIES.

13.1 Subject to the other provisions of this Lease, Landlord agrees to furnish to the Premises during Building Business Hours (specified on the Reference Pages) on generally recognized business days (but exclusive in any event of Sundays and national and local legal holidays), the following services and utilities subject to the rules and regulations of the Building prescribed from time to time: (a) water suitable for normal office use of the Premises; (b) heat and air 'for the use and occupation of the Premises during Building Business Hours at levels commensurate with other Class A office buildings in Boston, MA; (c) cleaning and janitorial service commensurate with other Class A office buildings in Boston, MA; (d) elevator service by non-attended automatic elevators, if applicable; and, (e) equipment to bring to the

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Premises electricity for lighting, convenience outlets and other normal office use. Landlord, at Landlord's cost and expense, may install and shall have access to the Premises to monitor a separate meter (or submeter) to determine the actual use of any utility in the Premises or any shared common area and may make available and share actual whole-project energy and water usage data as necessary to maintain the Building's "green building" certification. If Tenant pays for utilities directly to the utility company(ies), then, upon request and at no cost to Tenant, Tenant shall provide monthly utility usage to Landlord in electronic or paper format or provide permission for Landlord to request information regarding Tenant's utility usage directly from the utility company. To the extent that Tenant is not billed directly by a public utility, Tenant shall pay, within thirty (30) days of Landlord's demand, for all electricity used by Tenant in the Premises as determined by submeters serving the Premises. The charge shall be at the rates charged for such services by the local public utility. In the absence of Landlord's gross negligence or willful misconduct, Landlord shall not be liable for, and Tenant shall not be entitled to, any abatement or reduction of rental by reason of Landlord's failure to furnish any of the foregoing, unless such failure shall persist for ten (10) days or more after written notice of such failure is given to Landlord by Tenant and *provided further that* Landlord shall not be liable when such failure is caused by accident, breakage, repairs, labor disputes of any character, energy usage restrictions or by any other cause, similar or dissimilar, beyond the reasonable control of Landlord. Landlord shall use reasonable efforts to remedy any interruption in the furnishing of services and utilities.

With respect to electricity, there is one meter serving the entire fourth (4th) floor and Tenant shall pay 81.79% (*i.e.*, 8,499/10,368) ("**Tenant's Electrical Share**") of the costs of the electrical consumption for the fourth (4th) floor. Any submetering configuration that may be rendered necessary due to Tenant's alterations to the Premises shall be performed by Tenant at Tenant's expense. If at any time during the Term the electrical submeter for the Premises is not operational, then Landlord may charge Tenant for Tenant's estimated electricity usage in the Premises at Landlord's then standard electrical rate (which is currently $2.00 per RSF per year). Landlord shall not be liable in any way to Tenant for any failure or defect in the supply or character of electrical energy furnished to the Premises by reason of any requirement, act or omission of the public utility serving the Building with electricity unless due to the act or omission of Landlord. Tenant's use of electrical energy in the Premises shall not at any time exceed the capacity of any of the electrical conductors and equipment in or otherwise serving the Premises. In order to ensure that such capacity is not exceeded and to avert possible adverse effect upon the Building electrical services, Tenant shall give notice to Landlord and obtain Landlord's prior written consent whenever Tenant shall connect to the Building electrical distribution system any major fixtures, appliances or equipment, except for standard office equipment, such as computers, copiers, printers, and server equipment. Any additional feeders or risers to supply Tenant's electrical requirements in addition to those originally installed and all other equipment proper and necessary in connection with such feeders or risers, shall be installed by Landlord upon Tenant's request, at the sole cost and expense of Tenant, *provided that* such additional feeders and risers are permissible under applicable laws and insurance regulations and the installation of such feeders or risers will not cause permanent damage or injury to the Building or cause or create a dangerous condition or unreasonably interfere with other tenants of the Building. Tenant agrees that it will not make any significant alteration or material addition to the electrical equipment and/or appliances in the Premises without the prior written consent of Landlord in each instance first obtained, which consent will not be unreasonably withheld or delayed, and will promptly advise Landlord of any alteration or addition to such electrical equipment and/or appliances. Tenant, at Tenant's expense, shall purchase, install and replace all light fixtures, bulbs, tubes, lamps, lenses, globes, ballasts and switches used in the Premises.

13.2 Should Tenant require any additional work or service, as described above, including services furnished outside ordinary business hours specified above, Landlord may, on terms to be agreed,

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upon reasonable advance notice by Tenant, furnish such additional service and Tenant agrees to pay Landlord such charges as may be agreed upon, including any tax imposed thereon, but in no event at a charge less than Landlord's actual cost plus overhead for such additional service and, where appropriate, a reasonable allowance for depreciation of any systems being used to provide such service. The current charge for after-hours HVAC service, which is subject to change at any time, is specified on the Reference Pages.

13.3 Wherever heat-generating machines or equipment are used by Tenant in the Premises which affect the temperature otherwise maintained by the air conditioning system or Tenant allows occupancy of the Premises by more persons than the heating and air conditioning system is designed to accommodate, in either event whether with or without Landlord's approval, Landlord reserves the right to install supplementary heating and/or air conditioning units in or for the benefit of the Premises and the cost thereof, including the cost of installation and the cost of operations and maintenance, shall be paid by Tenant to Landlord within five (5) days of Landlord's demand. In addition, if applicable, Landlord may install at its sole expense and shall have access to the Premises to monitor a separate meter (or submeter) to determine the actual use of any utility in the Premises or any shared common area and may make available and share actual whole-project energy and water usage data as necessary to maintain the Building's "green building" certification, if any. If there is no meter or submeter in the Premises or if Tenant is billed directly by a public utility, then, upon request, Tenant shall provide monthly utility usage to Landlord in electronic or paper format or provide permission for Landlord to request information regarding Tenant's utility usage directly from the utility company.

13.4 Tenant will not, without the written consent of Landlord, use any apparatus or device in the Premises, including but not limited to, electronic data processing machines and machines using current in excess of 2000 watts and/or 20 amps or 120 volts, which will in any way increase the amount of electricity or water usually furnished or supplied for use of the Premises for normal office use, nor connect with electric current, except through existing electrical outlets in the Premises, or water pipes, any apparatus or device for the purposes of using electrical current or water. If Tenant shall require water or electric current in excess of that usually furnished or supplied for use of the Premises as normal office use, Tenant shall procure the prior written consent of Landlord for the use thereof, which Landlord may refuse, and if Landlord does consent, Landlord may cause a water meter or electric current meter to be installed so as to measure the amount of such excess water and electric current. The cost of any such meters shall be paid for by Tenant. Tenant agrees to pay to Landlord within five (5) days of Landlord's demand , the cost of all such excess water and electric current consumed (as shown by said meters, if any, or, if none, as reasonably estimated by Landlord) at the rates charged for such services by the local public utility or agency, as the case may be, furnishing the same, plus any additional expense incurred in keeping account of the water and electric current so consumed.

13.5 Tenant will not, without the written consent of Landlord, contract with a utility provider to service the Premises with any utility, including, but not limited to, telecommunications, electricity, water, sewer or gas, which is not previously providing such service to other tenants in the Building. Subject to Landlord's reasonable rules and regulations and the provisions of Articles 6 and 26, Tenant shall be entitled to the use of wiring ("**Communications Wiring**") from the existing telecommunications nexus in the Building to the Premises, sufficient for normal general office use of the Premises. Tenant shall not install any additional Communications Wiring, nor remove any Communications Wiring, without in each instance obtaining the prior written consent of Landlord, which consent may be withheld in Landlord's sole and absolute discretion. Landlord's shall in no event be liable for disruption in any service obtained by Tenant pursuant to this paragraph.

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13.6 Tenant covenants and agrees to (a) comply with applicable law regarding the collection, sorting, separation, and recycling of garbage, waste products, trash and other refuse at the Building (collectively, "**trash**") and (b) to sort and separate its trash into separate recycling containers as required by law, or furnished by Landlord and located in the Premises pursuant to Landlord's recycling policy for the Building. Landlord reserves the right to refuse to collect or accept from Tenant any trash that is not separated and sorted as required by law or pursuant to Landlord's recycling policy, and to require Tenant to arrange for such collection at Tenant's cost, utilizing a contractor reasonably satisfactory to Landlord. Tenant shall pay all costs, expenses, fines, penalties or damages that may be imposed on Landlord or Tenant by reason of Tenant's failure to comply with the provisions of this paragraph.

14. HOLDING OVER. Tenant shall pay Landlord for each day Tenant retains possession of the Premises or part of them after termination of this Lease by lapse of time or otherwise at the rate ("**Holdover Rate**") which shall be One Hundred Fifty Percent (150%) of the amount of the Annual Rent for the last period prior to the date of such termination plus Tenant's Proportionate Share of Expenses, Insurance Costs and Taxes under Article 4, prorated on a daily basis, and if such holdover lasts for more than 15 days, also pay all damages sustained by Landlord by reason of such retention. Any such holdover shall create 'a tenancy at sufferance at the Holdover Rate. In any event, no provision of this Article 14 shall be deemed to waive Landlord's right of reentry or any other right under this Lease or at law.

15. SUBORDINATION. Without the necessity of any additional document being executed by Tenant for the purpose of effecting a subordination, this Lease shall be subject and subordinate at all times to ground or underlying leases and to the lien of any mortgages or deeds of trust now or hereafter placed on, against or affecting the Building, Landlord's interest or estate in the Building, or any ground or underlying lease; *provided, however*, that if the lessor, mortgagee, trustee, or holder of any such mortgage or deed of trust elects to have Tenant's interest in this Lease be superior to any such instrument, then, by notice to Tenant, this Lease shall be deemed superior, whether this Lease was executed before or after said instrument. Notwithstanding the foregoing, Tenant covenants and agrees to execute and deliver within ten (10) days of Landlord's request such further instruments evidencing such subordination or superiority of this Lease as may be required by Landlord.

16. RULES AND REGULATIONS. Tenant shall faithfully observe and comply with all the rules and regulations as set forth in Exhibit D to this Lease and all reasonable and non-discriminatory modifications of and additions to them from time to time put into effect by Landlord. Landlord shall not be responsible to Tenant for the non-performance by any other tenant or occupant of the Building of any such rules and regulations.

17. REENTRY BY LANDLORD.

17.1 Landlord reserves and shall, upon at least 24 hours prior written notice (except in cases of emergency or for regularly scheduled janitorial services), have the right to re-enter the Premises to inspect the same, to supply janitor service and any other service to be provided by Landlord to Tenant under this Lease, to show said Premises to prospective purchasers or mortgagees or, in the last 12 months of the term of the Lease, to prospective tenants, and to alter, improve or repair the Premises and any portion of the Building, without abatement of rent, and may for that purpose erect, use and maintain scaffolding, pipes, conduits and other necessary structures and open any wall, ceiling or floor in and through the Building and Premises where reasonably required by the character of the work to be performed, *provided* entrance to the Premises shall not be blocked thereby, and *further provided that* the business of Tenant shall not be interfered with unreasonably. Landlord shall have the right at any time to change the arrangement and/or locations of entrances, or passageways, doors and doorways, and corridors, windows, elevators, stairs,

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toilets or other public parts of the Building and to change the name, number or designation by which the Building is commonly known. In the event that Landlord damages any portion of any wall or wall covering, ceiling, or floor or floor covering within the Premises, Landlord shall repair or replace the damaged portion to match the original as nearly as commercially reasonable but shall not be required to repair or replace more than the portion actually damaged. Other than in cases of emergencies, Tenant shall have the right to have one of its personnel accompany Landlord's personnel and invitees at all times during which they are on the Premises. Tenant hereby waives any claim for damages for any injury or inconvenience to or interference with Tenant's business, any loss of occupancy or quiet enjoyment of the Premises, and any other loss occasioned by any action of Landlord authorized by this Article 17, except to the extent caused by Landlord's gross negligence or willful misconduct.

17.2 For each of the aforesaid purposes, Landlord shall at all times have and retain a key with which to unlock all of the doors in the Premises, excluding Tenant's vaults and safes or special security areas (designated in advance), and Landlord shall have the right to use any and all means which Landlord may deem proper to open said doors in an emergency to obtain entry to any portion of the Premises. As to any portion to which access cannot be had by means of a key or keys in Landlord's possession, in cases of emergency only, Landlord is authorized to gain access by such means as Landlord shall elect and the cost of repairing any damage occurring in doing so shall be borne by Tenant and paid to Landlord within five (5) business days of Landlord's demand.

18. DEFAULT.

18.1 Except as otherwise provided in Article 20, the following events shall be deemed to be "Events of Default" under this Lease:

18.1.1 Tenant shall fail to pay when due any sum of money becoming due to be paid to Landlord under this Lease, whether such sum be any installment of the rent reserved by this Lease, any other amount treated as additional rent under this Lease, or any other payment or reimbursement to Landlord required by this Lease, whether or not treated as additional rent under this Lease, and such failure shall continue for a period of (5) business days after written notice that such payment was not made when due, but if any such notice shall be given two times, for the twelve (12) month period commencing with the date of such notice, the failure to pay within five business days after due any additional sum of money becoming due to be paid to Landlord under this Lease during such period shall be an Event of Default, without notice.

18.1.2 Tenant shall fail to comply with any term, provision or covenant of this Lease which is not provided for in another Section of this Article and shall not cure such failure within thirty (30) days (forthwith, if the failure involves a hazardous condition) after written notice of such failure to Tenant; *provided, however*, that such failure shall not be an Event of Default if such failure could not reasonably be cured during such twenty (20) day period, Tenant has commenced the cure within such twenty (20) day period and thereafter is diligently pursuing such cure to completion, but the total aggregate cure period shall not exceed ninety (90) days.

18.1.3 Tenant shall fail to vacate the Premises immediately upon termination of this Lease, by lapse of time or otherwise, or upon termination of Tenant's right to possession only.

18.1.4 Tenant shall become insolvent, admit in writing its inability to pay its debts generally as they become due, file a petition in bankruptcy or a petition to take advantage of any insolvency statute, make an assignment for the benefit of creditors, make a transfer in fraud of creditors,

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apply for or consent to the appointment of a receiver of itself or of the whole or any substantial part of its property, or file a petition or answer seeking reorganization or arrangement under the federal bankruptcy laws, as now in effect or hereafter amended, or any other applicable law or statute of the United States or any state thereof.

18.1.5 A court of competent jurisdiction shall enter an order, judgment or decree adjudicating Tenant bankrupt, or appointing a receiver of Tenant, or of the whole or any substantial part of its property, without the consent of Tenant, or approving a petition filed against Tenant seeking reorganization or arrangement of Tenant under the bankruptcy laws of the United States, as now in effect or hereafter amended, or any state thereof, and such order, judgment or decree shall not be vacated or set aside or stayed within ninety (90) days from the date of entry thereof.

19. REMEDIES.

19.1 Except as otherwise provided in Article 20, upon the occurrence of any of the Events of Default described or referred to in Article 18, Landlord shall have the option to pursue any one or more of the following remedies without any notice or demand whatsoever, concurrently or consecutively and not alternatively:

19.1.1 Landlord may, at its election, terminate this Lease or terminate Tenant's right to possession only, without terminating the Lease.

19.1.2 Upon any termination of this Lease, whether by lapse of time or otherwise, or upon any termination of Tenant's right to possession without termination of this Lease, Tenant shall surrender possession and vacate the Premises immediately, and deliver possession thereof to Landlord, and Tenant hereby grants to Landlord full and free license to enter into and upon the Premises in such event and to repossess Landlord of the Premises as of Landlord's former estate and to expel or remove Tenant and any others who may be occupying or be within the Premises and to remove Tenant's signs and other evidence of tenancy and all other property of Tenant therefrom without being deemed in any manner guilty of trespass, eviction or forcible entry or detainer, and without incurring any liability for any damage resulting therefrom, Tenant waiving any right to claim damages for such re-entry and expulsion, and without relinquishing Landlord's right to rent or any other right given to Landlord under this Lease or by operation of law.

19.1.3 Upon any termination of this Lease, whether by lapse of time or otherwise, Landlord shall be entitled to recover as damages, all rent, including any amounts treated as additional rent under this Lease, and other sums due and payable by Tenant as of the date of termination, plus as liquidated damages and not as a penalty, an amount equal to the sum of: (a) an amount equal to the then present value of the rent reserved in this Lease for the residue of the stated Term of this Lease including any amounts treated as additional rent under this Lease and all other sums provided in this Lease to be paid by Tenant, minus the fair rental value of the Premises for such residue; and (b) the estimated expenses described in Section 19.1.4 relating to recovery of the Premises and for reletting itself and (c) the cost of performing any other covenants which would have otherwise been performed by Tenant.

19.1.4 Upon any termination of Tenant's right to possession only without termination of this Lease:

19.1.4.1 Neither such termination of Tenant's right to possession nor Landlord's taking and holding possession thereof as provided in Section 19.1.2 shall terminate this Lease

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or release Tenant, in whole or in part, from any obligation, including Tenant's obligation to pay the rent, including any amounts treated as additional rent, under this Lease for the full Term, and if Landlord so elects Tenant shall continue to pay to Landlord the entire amount of the rent as and when it becomes due, including any amounts treated as additional rent under this Lease, for the remainder of the Term plus any other sums provided in this Lease to be paid by Tenant for the remainder of the Term. For the avoidance of doubt, if Landlord elects to collect the lump sum damages from Tenant pursuant to Section 19.1.3, Tenant shall have no obligation to make payments to Landlord pursuant to this Section 19.1.4.

19.1.4.2 Landlord shall use commercially reasonable efforts to relet the Premises or portions thereof to the extent required by applicable law. Landlord and Tenant agree that nevertheless Landlord shall at most be required to use only the same efforts Landlord then uses to lease premises in the Building generally and that in any case that Landlord shall not be required to give any preference or priority to the showing or leasing of the Premises or portions thereof over any other space that Landlord may be leasing or have available and may place a suitable prospective tenant in any such other space regardless of when such other space becomes available and that Landlord shall have the right to relet the Premises for a greater or lesser term than that remaining under this Lease, the right to relet only a portion of the Premises, or a portion of the Premises or the entire Premises as a part of a larger area, and the right to change the character or use of the Premises. In connection with or in preparation for any reletting, Landlord may, but shall not be required to, make reasonable repairs, alterations and additions in or to the Premises and redecorate the same, and Tenant shall pay the cost thereof, together with Landlord's expenses of reletting, including, without limitation, any commission incurred by Landlord, within twenty (20) days of Landlord's demand. Landlord shall not be required to observe any instruction given by Tenant about any reletting or accept any tenant offered by Tenant unless such offered tenant has a credit-worthiness acceptable to Landlord and leases the entire Premises upon terms and conditions including a rate of rent (after giving effect to all expenditures by Landlord for tenant improvements, broker's commissions and other leasing costs) all no less favorable to Landlord than as called for in this Lease, nor shall Landlord be required to make or permit any assignment or sublease for more than the current term or which Landlord would not be required to permit under the provisions of Article 9.

19.1.4.3 Until such time as Landlord shall elect to terminate this Lease and shall thereupon be entitled to recover the amounts specified in such case in Section 19.1.3, Tenant shall pay to Landlord upon demand the full amount of all rent, including any amounts treated as additional rent under this Lease and other sums reserved in this Lease for the remaining Term, together with the costs of reasonable repairs, alterations, additions, redecorating and Landlord's expenses of reletting and the collection of the rent accruing therefrom (including reasonable attorney's fees and broker's commissions), as the same shall then be due or become due from time to time, less only such consideration as Landlord may have received from any reletting of the Premises; and Tenant agrees that Landlord may file suits from time to time to recover any sums falling due under this Article 19 as they become due. Any proceeds of reletting by Landlord in excess of the amount then owed by Tenant to Landlord from time to time shall be credited against Tenant's future obligations under this Lease but shall not otherwise be refunded to Tenant or inure to Tenant's benefit.

19.2 Upon the occurrence of an Event of Default, Landlord may (but shall not be obligated to) cure such default at Tenant's sole expense. Without limiting the generality of the foregoing, Landlord may, at Landlord's option, enter into and upon the Premises if Landlord determines in its sole discretion that Tenant is not acting within a commercially reasonable time to maintain, repair or replace anything for which Tenant is responsible under this Lease or to otherwise effect compliance with its obligations under this Lease and correct the same, without being deemed in any manner guilty of trespass, eviction or forcible

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entry and detainer and without incurring any liability for any damage or interruption of Tenant's business resulting therefrom and Tenant agrees to reimburse Landlord within twenty (20) business days of Landlord's demand as additional rent, for any expenses which Landlord may incur in thus effecting compliance with Tenant's obligations under this Lease, plus interest from the date of expenditure by Landlord at the Wall Street Journal prime rate.

19.3 Tenant understands and agrees that in entering into this Lease, Landlord is relying upon receipt of all the Annual Rent, Monthly Installments of Rent and additional rent to become due with respect to all the Premises originally leased hereunder over the full Initial Term of this Lease for amortization, including interest at the Amortization Rate. For purposes hereof, the "**Concession Amount**" shall be defined as the aggregate of all amounts forgone or expended by Landlord as free rent under this Lease, under Exhibit B hereof for construction allowances (excluding therefrom any amounts expended by Landlord for the Landlord's Work, as defined in Exhibit B), and for brokers' commissions payable by reason of this Lease. Accordingly, Tenant agrees that if this Lease or Tenant's right to possession of the Premises leased hereunder shall be terminated as of any date ("**Default Termination Date**") prior to the expiration of the full Initial Term hereof by reason of a default of Tenant, there shall be due and owing to Landlord as of the day prior to the Default Termination Date, as rent in addition to all other amounts owed by Tenant as of such date, the amount ("**Unamortized Amount**") of the Concession Amount determined as set forth below; provided, however, that in the event that such amounts are recovered by Landlord pursuant to any other provision of this Article 19, Landlord agrees that it shall not attempt to recover such amounts pursuant to this Section 19.3. For the purposes hereof, the Unamortized Amount shall be determined in the same manner as the remaining principal balance of a mortgage with interest at the Amortization Rate payable in level payments over the same length of time as from the effectuation of the Concession concerned to the end of the full Initial Term of this Lease would be determined.

19.4 If, on account of any breach or default by Tenant in Tenant's obligations under the terms and conditions of this Lease, it shall become necessary or appropriate for Landlord to employ or consult with an attorney or collection agency concerning or to enforce or defend any of Landlord's rights or remedies arising under this Lease or to collect any sums due from Tenant, Tenant agrees to pay all costs and fees so incurred by Landlord, including, without limitation, reasonable attorneys' fees and costs. **TENANT EXPRESSLY WAIVES ANY RIGHT TO: (A) TRIAL BY JURY; AND (B) SERVICE OF ANY NOTICE REQUIRED BY ANY PRESENT OR FUTURE LAW OR ORDINANCE APPLICABLE TO LANDLORDS OR TENANTS BUT NOT REQUIRED BY THE TERMS OF THIS LEASE.**

19.5 Pursuit of any of the foregoing remedies shall not preclude pursuit of any of the other remedies provided in this Lease or any other remedies provided by law (all such remedies being cumulative), nor shall pursuit of any remedy provided in this Lease constitute a forfeiture or waiver of any rent due to Landlord under this Lease or of any damages accruing to Landlord by reason of the violation of any of the terms, provisions and covenants contained in this Lease. Notwithstanding the foregoing, once Landlord has elected to recover damages from Tenant under Section 19.1.3 and has, in fact, received such damages from Tenant, Landlord may not thereafter elect to receive damages under Section 19.1.4.

19.6 No act or thing done by Landlord or its agents during the Term shall be deemed a termination of this Lease or an acceptance of the surrender of the Premises, and no agreement to terminate this Lease or accept a surrender of said Premises shall be valid, unless in writing signed by Landlord. No waiver by Landlord of any violation or breach of any of the terms, provisions and covenants contained in this Lease shall be deemed or construed to constitute a waiver of any other violation or breach of any of the terms, provisions and covenants contained in this Lease. Landlord's acceptance of the payment of rental or other payments after the occurrence of an Event of Default shall not be construed as a waiver of such Event

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of Default, unless Landlord so notifies Tenant in writing. Forbearance by Landlord in enforcing one or more of the remedies provided in this Lease upon an Event of Default shall not be deemed or construed to constitute a waiver of such Event of Default or of Landlord's right to enforce any such remedies with respect to such Event of Default or any subsequent Event of Default.

19.7 To secure the payment of all rentals and other sums of money becoming due from Tenant under this Lease, Landlord shall have and Tenant grants to Landlord a first lien upon the leasehold interest of Tenant under this Lease, which lien may be enforced in equity.

19.8 Any and all property which may be removed from the Premises by Landlord pursuant to the authority of this Lease or of law, to which Tenant is or may be entitled, may be handled, removed and/or stored, as the case may be, by or at the direction of Landlord but at the risk, cost and expense of Tenant, and Landlord shall in no event be responsible for the value, preservation or safekeeping thereof. Tenant shall pay to Landlord, upon demand, any and all expenses incurred in such removal and all storage charges against such property so long as the same shall be in Landlord's possession or under Landlord's control. Any such property of Tenant not retaken by Tenant from storage within thirty (30) days after removal from the Premises shall, at Landlord's option, be deemed conveyed by Tenant to Landlord under this Lease as by a bill of sale without further payment or credit by Landlord to Tenant.

19.9 If more than one (1) Event of Default occurs during the Term or any renewal thereof, Tenant's renewal options, expansion options, purchase options and rights of first offer and/or refusal, if any are provided for in this Lease, shall be null and void.

20. TENANT'S BANKRUPTCY OR INSOLVENCY.

20.1 If at any time and for so long as Tenant shall be subjected to the provisions of the United States Bankruptcy Code or other law of the United States or any state thereof for the protection of debtors as in effect at such time (each a "**Debtor's Law**"):

20.1.1 Tenant, Tenant as debtor-in-possession, and any trustee or receiver of Tenant's assets (each a "**Tenant's Representative**") shall have no greater right to assume or assign this Lease or any interest in this Lease, or to sublease any of the Premises than accorded to Tenant in Article 9, except to the extent Landlord shall be required to permit such assumption, assignment or sublease by the provisions of such Debtor's Law. Without limitation of the generality of the foregoing, any right of any Tenant's Representative to assume or assign this Lease or to sublease any of the Premises shall be subject to the conditions that:

20.1.1.1 Such Debtor's Law shall provide to Tenant's Representative a right of assumption of this Lease which Tenant's Representative shall have timely exercised and Tenant's Representative shall have fully cured any default of Tenant under this Lease.

20.1.1.2 Tenant's Representative or the proposed assignee, as the case shall be, shall have deposited with Landlord as security for the timely payment of rent an amount equal to the larger of: (a) three (3) months' rent and other monetary charges accruing under this Lease; and (b) any sum specified in Article 5; and shall have provided Landlord with adequate other assurance of the future performance of the obligations of the Tenant under this Lease. Without limitation, such assurances shall include, at least, in the case of assumption of this Lease, demonstration to the satisfaction of the Landlord that Tenant's Representative has and will continue to have sufficient unencumbered assets after the payment of all secured obligations and administrative expenses to assure Landlord that Tenant's

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Representative will have sufficient funds to fulfill the obligations of Tenant under this Lease; and, in the case of assignment, submission of current financial statements of the proposed assignee, audited by an independent certified public accountant reasonably acceptable to Landlord and showing a net worth and working capital in amounts determined by Landlord to be sufficient to assure the future performance by such assignee of all of the Tenant's obligations under this Lease.

20.1.1.3 The assumption or any contemplated assignment of this Lease or subleasing any part of the Premises, as shall be the case, will not breach any provision in any other lease, mortgage, financing agreement or other agreement by which Landlord is bound.

20.1.1.4 Landlord shall have, or would have had absent the Debtor's Law, no right under Article 9 to refuse consent to the proposed assignment or sublease by reason of the identity or nature of the proposed assignee or sublessee or the proposed use of the Premises concerned.

21. QUIET ENJOYMENT. Landlord represents and warrants that it has full right and authority to enter into this Lease and that Tenant, while paying the rental and performing its other covenants and agreements contained in this Lease, shall peaceably and quietly have, hold and enjoy the Premises for the Term without hindrance or molestation from Landlord subject to the terms and provisions of this Lease. Landlord shall not be liable for any interference or disturbance by other tenants or third persons, nor shall Tenant be released from any of the obligations of this Lease because of such interference or disturbance.

22. CASUALTY.

22.1 In the event the Premises or the Building are damaged by fire or other cause and in Landlord's reasonable estimation such damage can be materially restored within one hundred eighty (180) days following the commencement of restoration, Landlord shall forthwith repair the same and this Lease shall remain in full force and effect, except that Tenant shall be entitled to a proportionate abatement in rent from the date of such damage. Such abatement of rent shall be made pro rata in accordance with the extent to which the damage and the making of such repairs shall interfere with the use and occupancy by Tenant of the Premises from time to time. Within forty-five (45) days from the date of such damage, Landlord shall notify Tenant, in writing, of Landlord's reasonable estimation of the length of time within which material restoration can be made, and Landlord's determination shall be binding on Tenant. For purposes of this Lease, the Building or Premises shall be deemed "materially restored" if they are in such condition as would not prevent or materially interfere with Tenant's use of the Premises for the purpose for which it was being used immediately before such damage.

22.2 If such repairs cannot, in Landlord's reasonable estimation, be made within one hundred eighty (180) days following the commencement of restoration, or if the damage to the Building occurs in the last year of the term of this Lease, Landlord and Tenant shall each have the option of giving the other, at any time within thirty (30) days after Landlord's notice of estimated restoration time, notice terminating this Lease as of the date of such damage. In the event of the giving of such notice, this Lease shall expire and all interest of the Tenant in the Premises shall terminate as of the date of such damage as if such date had been originally fixed in this Lease for the expiration of the Term. In the event that neither Landlord nor Tenant exercises its option to terminate this Lease, then Landlord shall repair or restore such damage, this Lease continuing in full force and effect, and the rent hereunder shall be proportionately abated as provided in Section 22.1.

22.3 Landlord shall not be required to repair or replace any damage or loss by or from fire or other cause to any panelings, decorations, partitions, additions, railings, ceilings, floor coverings, office

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fixtures or any other property or improvements to the extent any of the foregoing are installed on the Premises by, or belonging to, Tenant. Any insurance which may be carried by Landlord or Tenant against loss or damage to the Building or Premises shall be for the sole benefit of the party carrying such insurance and under its sole control.

22.4 In the event that Landlord should fail to complete such repairs and material restoration within forty-five (45) days after the date estimated by Landlord therefor as extended by this Section 22.4, Tenant may at its option and as its sole remedy terminate this Lease by delivering written notice to Landlord, within fifteen (15) days after the expiration of said period of time, whereupon the Lease shall end on the date of such notice or such later date fixed in such notice as if the date of such notice was the date originally fixed in this Lease for the expiration of the Term; *provided*, *however*, that if construction is delayed because of changes, deletions or additions in construction requested by Tenant, strikes, lockouts, casualties, Acts of God, war, material or labor shortages, government regulation or control or other causes beyond the reasonable control of Landlord, the period for restoration, repair or rebuilding shall be extended for the amount of time Landlord is so delayed.

22.5 Notwithstanding anything to the contrary contained in this Article: (a) Landlord shall not have any obligation whatsoever to repair, reconstruct, or restore the Premises when the damages resulting from any casualty covered by the provisions of this Article 22 occur during the last twelve (12) months of the Term, or for which sufficient insurance proceeds to fully cover the repair and restoration are not received by Landlord, but if Landlord determines not to repair such damages Landlord shall notify Tenant and if such damages shall render any material portion of the Premises or common areas of Building untenantable Tenant shall have the right to terminate this Lease by notice to Landlord within fifteen (15) days after receipt of Landlord's notice; and (b) in the event the holder of any indebtedness secured by a mortgage or deed of trust covering the Premises or Building requires that any insurance proceeds be applied to such indebtedness, then Landlord shall have the right to terminate this Lease by delivering written notice of termination to Tenant within fifteen (15) days after such requirement is made by any such holder, whereupon this Lease shall end on the date of such damage as if the date of such damage were the date originally fixed in this Lease for the expiration of the Term.

22.6 In the event of any damage or destruction to the Building or Premises by any peril covered by the provisions of this Article 22, it shall be Tenant's responsibility to properly secure the Premises and upon notice from Landlord to remove forthwith, at its sole cost and expense, such portion of all of the property belonging to Tenant or its licensees from such portion or all of the Building or Premises as Landlord shall request.

23. EMINENT DOMAIN. If all or any substantial part of the Premises shall be taken or appropriated by any public or quasi-public authority under the power of eminent domain, or conveyance in lieu of such appropriation, either party to this Lease shall have the right, at its option, of giving the other, at any time within thirty (30) days after such taking, notice terminating this Lease, except that Tenant may only terminate this Lease by reason of taking or appropriation, if such taking or appropriation shall be so substantial as to materially interfere with Tenant's use and occupancy of the Premises. If neither party to this Lease shall so elect to terminate this Lease, the rental thereafter to be paid shall be adjusted on a fair and equitable basis under the circumstances. In addition to the rights of Landlord above, if any substantial part of the Building shall be taken or appropriated by any public or quasi-public authority under the power of eminent domain or conveyance in lieu thereof, and regardless of whether the Premises or any part thereof are so taken or appropriated, Landlord shall have the right, at its sole option, to terminate this Lease. Landlord shall be entitled to any and all income, rent, award, or any interest whatsoever in or upon any such sum, which may be paid or made in connection with any such public or

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quasi-public use or purpose, and Tenant hereby assigns to Landlord any interest it may have in or claim to all or any part of such sums, other than any separate award which may be made with respect to Tenant's trade fixtures and moving expenses; Tenant shall make no claim for the value of any unexpired Term.

24. SALE BY LANDLORD. In event of a sale or conveyance by Landlord of the Building, the same shall operate to release Landlord from any future liability upon any of the covenants or conditions, expressed or implied, contained in this Lease in favor of Tenant, and in such event Tenant agrees to look solely to the responsibility of the successor in interest of Landlord in and to this Lease, except that Landlord shall not be released from its obligation to return the security deposit required under this Lease unless and until Landlord transfers such security deposit to such assignee or transferee of the Lease. Except as set forth in this Article 24, this Lease shall not be affected by any such sale and Tenant agrees to attorn to the purchaser or assignee. If any security has been given by Tenant to secure the faithful performance of any of the covenants of this Lease, Landlord shall transfer or deliver said security, as such, to Landlord's successor in interest and thereupon Landlord shall be discharged from any further liability with regard to said security.

25. ESTOPPEL CERTIFICATES. Within ten (10) days following any written request which Landlord may make from time to time, Tenant shall execute and deliver to Landlord or mortgagee or prospective mortgagee a sworn statement certifying: (a) the date of commencement of this Lease; (b) the fact that this Lease is unmodified and in full force and effect (or, if there have been modifications to this Lease, that this Lease is in full force and effect, as modified, and stating the date and nature of such modifications); (c) the date to which the rent and other sums payable under this Lease have been paid; (d) the fact that there are no current defaults under this Lease by either Landlord or Tenant except as specified in Tenant's statement (or, if there are current defaults under this Lease, stating the and nature of such defaults); and (e) such other matters as may be reasonably requested by Landlord. Landlord and Tenant intend that any statement delivered pursuant to this Article 25 may be relied upon by any mortgagee, beneficiary or purchaser, and Tenant shall be liable for all loss, cost or expense resulting from the failure of any sale or funding of any loan caused by any material misstatement contained in such estoppel certificate. Tenant irrevocably agrees that if Tenant fails to execute and deliver such certificate within such ten (10) day period Landlord or Landlord's beneficiary or agent may execute and deliver such certificate on Tenant's behalf, and that such certificate shall be fully binding on Tenant except to the extent Landlord knowingly makes misstatements of material facts in such certificate.

26. SURRENDER OF PREMISES.

26.1 Tenant shall arrange to meet Landlord for two (2) joint inspections of the Premises, the first to occur at least thirty (30) days (but no more than sixty (60) days) before the last day of the Term, and the second to occur not later than forty-eight (48) hours after Tenant has vacated the Premises.

26.2 All alterations, additions, and improvements in, on, or to the Premises made or installed by or for Tenant, including, without limitation, carpeting (collectively, "**Alterations**"), shall be and remain the property of Tenant during the Term. Upon the expiration or sooner termination of the Term, all Alterations shall become a part of the realty and shall belong to Landlord without compensation, and title shall pass to Landlord under this Lease as by a bill of sale. At the end of the Term or any renewal of the Term or other sooner termination of this Lease, Tenant will peaceably deliver up to Landlord possession of the Premises, together with all Alterations by whomsoever made, in the same conditions received or first installed, broom clean and free of all debris, excepting only ordinary wear and tear and damage by fire or other casualty. Notwithstanding the foregoing, (i) Landlord shall notify Tenant, at the time Landlord approves the final construction drawings for Landlord's Work, whether any portions of the Landlord's

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Work will be required to be removed by Tenant at the end of the Term, (ii) Tenant shall have no obligation to remove any carpeting from the Premises, and (iii) for Alterations made during the Term, Landlord shall notify Tenant, at the time Landlord approves or consents to such Alterations, whether any such Alterations will be required to be removed by Tenant at the end of the Term. Any such required removal by Tenant shall be at Tenant's sole cost, and Tenant shall repair any damage caused by such removal. Tenant must, at Tenant's sole cost, remove upon termination of this Lease, any and all of Tenant's furniture, furnishings, equipment, movable partitions of less than full height from floor to ceiling and other trade fixtures and personal property, as well as all data/telecommunications cabling and wiring installed by or on behalf of Tenant, whether inside walls, under any raised floor or above any ceiling (collectively, "**Personalty**"). Personalty not so removed shall be deemed abandoned by the Tenant and title to the same shall thereupon pass to Landlord under this Lease as by a bill of sale, but Tenant shall remain responsible for the cost of removal and disposal of such Personalty, as well as any damage caused by such removal. In lieu of requiring Tenant to remove Alterations and Personalty and repair the Premises as aforesaid, Landlord may, by written notice to Tenant delivered at least thirty (30) days before the Termination Date, require Tenant to pay to Landlord, as additional rent hereunder, the cost of such removal and repair in an amount reasonably estimated by Landlord.

26.3 All obligations of Tenant under this Lease not fully performed as of the expiration or earlier termination of the Term shall survive the expiration or earlier termination of the Term Upon the expiration or earlier termination of the Term, Tenant shall pay to Landlord the amount, as estimated by Landlord, necessary to repair and restore the Premises as provided in this Lease and/or to discharge Tenant's obligation for unpaid amounts due or to become due to Landlord. All such amounts shall be used and held by Landlord for payment of such obligations of Tenant, with Tenant being liable for any additional costs upon demand by Landlord, or with any excess to be returned to Tenant after all such obligations have been determined and satisfied. Any otherwise unused Security Deposit shall be credited against the amount payable by Tenant under this Lease.

27. NOTICES. Any notice or document required or permitted to be delivered under this Lease shall be addressed to the intended recipient, by fully prepaid registered or certified United States Mail return receipt requested, or by reputable independent contract delivery service furnishing a written record of attempted or actual delivery, and shall be deemed to be delivered when tendered for delivery to the addressee at its address set forth on the Reference Pages, or at such other address as it has then last specified by written notice delivered in accordance with this Article 27, or if to Tenant at either its aforesaid address or its last known registered office or home of a general partner or individual owner, whether or not actually accepted or received by the addressee. Any such notice or document may also be personally delivered if a receipt is signed by and received from, the individual, if any, named in Tenant's Notice Address.

28. TAXES PAYABLE BY TENANT. In addition to rent and other charges to be paid by Tenant under this Lease, Tenant shall reimburse to Landlord, upon demand, any and all taxes payable by Landlord (other than net income taxes) whether or not now customary or within the contemplation of the parties to this Lease: (a) upon, allocable to, or measured by or on the gross or net rent payable under this Lease, including without limitation any gross income tax or excise tax levied by the State, any political subdivision thereof, or the Federal Government with respect to the receipt of such rent; (b) upon or with respect to the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy of the Premises or any portion thereof, including any sales, use or service tax imposed as a result thereof; (c) upon or measured by the Tenant's gross receipts or payroll or the value of Tenant's equipment, furniture, fixtures and other personal property of Tenant or leasehold improvements, alterations or additions located in the Premises; or (d) upon this transaction or any document to which

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Tenant is a party creating or transferring any interest of Tenant in this Lease or the Premises. In addition to the foregoing, Tenant agrees to pay, before delinquency, any and all taxes levied or assessed against Tenant and which become payable during the term hereof upon Tenant's equipment, furniture, fixtures and other personal property of Tenant located in the Premises.

29. RELOCATION OF TENANT. Landlord, at its sole expense, on at least sixty (60) days prior written notice, may require Tenant to move from the Premises to other space on floors five (5) through eight (8) of comparable size and decor in order to permit Landlord to consolidate the space leased to Tenant with other adjoining space leased or to be leased to another tenant. In the event of any such relocation, Landlord will pay all expenses of preparing and decorating the new premises so that they will be the same or better than the Premises from which Tenant is moving, and Landlord will also pay the expense of moving Tenant's furniture and equipment to the relocated premises. In such event this Lease and each and all of the terms and covenants and conditions hereof shall remain in full force and effect and thereupon be deemed applicable to such new space except that revised Reference Pages and a revised Exhibit A shall become part of this Lease and shall reflect the location of the new premises.

30. DEFINED TERMS AND HEADINGS. The Article headings shown in this Lease are for convenience of reference and shall in no way define, increase, limit or describe the scope or intent of any provision of this Lease. Any indemnification or insurance of Landlord shall apply to and inure to the benefit of all the following "**Landlord Entities**", being Landlord, Landlord's investment manager, and the trustees, boards of directors, officers, general partners, beneficiaries, stockholders, employees and agents of each of them. Any option granted to Landlord shall also include or be exercisable by Landlord's trustee, beneficiary, agents and employees, as the case may be. In any case where this Lease is signed by more than one person, the obligations under this Lease shall be joint and several. The terms "Tenant" and "Landlord" or any pronoun used in place thereof shall indicate and include the masculine or feminine, the singular or plural number, individuals, firms or corporations, and their and each of their respective successors, executors, administrators and permitted assigns, according to the context hereof. The term "rentable area" shall mean the rentable area of the Premises or the Building as calculated by the Landlord on the basis of the plans and specifications of the Building including a proportionate share of any common areas. Tenant hereby accepts and agrees to be bound by the figures for the rentable square footage of the Premises and Tenant's Proportionate Share shown on the Reference Pages; however, Landlord may adjust either or both figures if there is manifest error, addition or subtraction to the Building or any business park or complex of which the Building is a part, remeasurement or other circumstance reasonably justifying adjustment. The term "Building" refers to the structure in which the Premises are located and the common areas (parking lots, sidewalks, landscaping, etc.) appurtenant thereto. If the Building is part of a larger complex of structures, the term "Building" may include the entire complex, where appropriate (such as shared Expenses, Insurance Costs or Taxes) and subject to Landlord's reasonable discretion.

31. TENANT'S AUTHORITY. If Tenant signs as a corporation, partnership, trust or other legal entity each of the persons executing this Lease on behalf of Tenant represents and warrants that Tenant has been and is qualified to do business in the state in which the Building is located, that the entity has full right and authority to enter into this Lease, and that all persons signing on behalf of the entity were authorized to do so by appropriate actions. Tenant agrees to deliver to Landlord, simultaneously with the delivery of this Lease, a corporate resolution, proof of due authorization by partners, opinion of counsel or other appropriate documentation reasonably acceptable to Landlord evidencing the due authorization of Tenant to enter into this Lease.

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Tenant hereby represents and warrants that neither Tenant, nor any persons or entities holding any legal or beneficial interest whatsoever in Tenant, are (i) the target of any sanctions program that is established by Executive Order of the President or published by the Office of Foreign Assets Control, U.S. Department of the Treasury ("**OFAC**"); (ii) designated by the President or OFAC pursuant to the Trading with the Enemy Act, 50 U.S.C. App. § 5, the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701-06, the Patriot Act, Public Law 107-56, Executive Order 13224 (September 23, 2001) or any Executive Order of the President issued pursuant to such statutes; or (iii) named on the following list that is published by OFAC: "List of Specially Designated Nationals and Blocked Persons." If the foregoing representation is untrue at any time during the Term, an Event of Default will be deemed to have occurred, without the necessity of notice to Tenant.

32. FINANCIAL STATEMENTS AND CREDIT REPORTS. At Landlord's request, and subject to a confidentiality agreement reasonably acceptable to both Landlord and Tenant, Tenant shall deliver to Landlord a copy, certified by an officer of Tenant as being a true and correct copy, of Tenant's most recent audited financial statement, or, if unaudited, certified by Tenant's chief financial officer as being true, complete and correct in all material respects. Tenant hereby authorizes Landlord to obtain one or more credit reports on Tenant at any time, and shall execute such further authorizations as Landlord may reasonably require in order to obtain a credit report. The obligations set forth in this Section 32 shall be suspended for all periods of time during which Tenant is a "public company" and subject to the public reporting obligations of the Securities Act of 1934, as amended.

33. COMMISSIONS. Each of the parties represents and warrants to the other that it has not dealt with any broker or finder in connection with this Lease, except as described on the Reference Pages. Landlord understands and acknowledges that it shall be responsible for payment of any commissions owed to the brokers described on the Reference Pages and shall indemnify and hold Tenant harmless against any non-payment of such commissions.

34. TIME AND APPLICABLE LAW. Time is of the essence of this Lease and all of its provisions. This Lease shall in all respects be governed by the laws of the state in which the Building is located. Whenever a period of time is prescribed for the taking of an action by Landlord, the period of time for the performance of such action shall be extended by the number of days that the performance is actually delayed due to strikes, acts of God, shortages of labor or materials, war, terrorist acts, pandemics, civil disturbances and other causes beyond the reasonable control of the performing party.

35. SUCCESSORS AND ASSIGNS. Subject to the provisions of Article 9, the terms, covenants and conditions contained in this Lease shall be binding upon and inure to the benefit of the heirs, successors, executors, administrators and assigns of the parties to this Lease.

36. ENTIRE AGREEMENT. This Lease, together with its exhibits, contains all agreements of the parties to this Lease and supersedes any previous negotiations. There have been no representations made by the Landlord or any of its representatives or understandings made between the parties other than those set forth in this Lease and its exhibits. This Lease may not be modified except by a written instrument duly executed by the parties to this Lease.

37. EXAMINATION NOT OPTION. Submission of this Lease shall not be deemed to be a reservation of the Premises. Landlord shall not be bound by this Lease until it has received a copy of this Lease duly executed by Tenant and has delivered to Tenant a copy of this Lease duly executed by Landlord, and until such delivery Landlord reserves the right to exhibit and lease the Premises to other prospective tenants. Notwithstanding anything contained in this Lease to the contrary, Landlord may

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withhold delivery of possession of the Premises from Tenant until such time as Tenant has paid to Landlord any security deposit required by Article 5, the first month's rent as set forth in Article 3 and any sum owed pursuant to this Lease.

38. RECORDATION. Tenant shall not record or register this Lease or a short form memorandum hereof without the prior written consent of Landlord, and then shall pay all charges and taxes incident such recording or registration.

39. PARKING.

39.1 During the initial Term of this Lease, Tenant agrees to lease from Landlord and Landlord agrees to lease to Tenant, the number and type of parking passes as set forth on the Reference Page of this Lease. This right to park in the Building's parking facilities (the "**Parking Facility**") shall be on an unreserved, nonexclusive, first come, first served basis, for passenger-size automobiles and is subject to the following terms and conditions:

39.1.1 Tenant shall pay to Landlord, or Landlord's designated parking operator, the Building's prevailing monthly parking charges, without deduction or offset, on the first day of each month during the Term of this Lease. Landlord will notify Tenant upon not less than thirty (30) days' notice of any increases in the monthly parking charges prior to billing Tenant any increases. No deductions from the monthly charge shall be made for days on which the Parking Facility is not used by Tenant.

39.1.2 Tenant shall at all times abide by and shall cause each of Tenant's employees, agents, customers, visitors, invitees, licensees, contractors, assignees and subtenants (collectively, "**Tenant's Parties**") to abide by any rules and regulations ("**Rules**") for use of the Parking Facility that Landlord or Landlord's garage operator reasonably establishes from time to time, and otherwise agrees to use the Parking Facility in a safe and lawful manner. Landlord reserves the right to adopt, modify and enforce the Rules governing the use of the Parking Facility from time to time including any key-card, sticker or other identification or entrance system and hours of operation. Landlord may refuse to permit any person who violates such Rules to park in the Parking Facility, and any violation of the Rules shall subject the car to removal from the Parking Facility.

39.1.3 Unless specified to the contrary above, the parking spaces hereunder shall be provided on a non-designated "first-come, first-served" basis. Landlord reserves the right to assign specific spaces, and to reserve spaces for visitors, small cars, disabled persons or for other tenants or guests, and Tenant shall not park and shall not allow Tenant's Parties to park in any such assigned or reserved spaces; *provided however*, that Landlord shall manage the parking garage to ensure that the parking space is available to Tenant as per this Section 39. Tenant may validate visitor parking by such method as Landlord may approve, at the validation rate from time to time generally applicable to visitor parking. Tenant acknowledges that the Parking Facility may be closed entirely or in part in order to make repairs or perform maintenance services, or to alter, modify, re-stripe or renovate the Parking Facility, or if required by casualty, strike, condemnation, act of God, governmental law or requirement or other reason beyond the operator's reasonable control.

39.1.4 Tenant acknowledges that to the fullest extent permitted by law, Landlord shall have no liability for any damage to property or other items located in the parking areas of the Building (including without limitation, any loss or damage to tenant's automobile or the contents thereof due to theft, vandalism or accident), nor for any personal injuries or death arising out of the use of the Parking

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Facility by Tenant or any Tenant's Parties, whether or not such loss or damage results from Landlord's active negligence or negligent omission. The limitation on Landlord's liability under the preceding sentence shall not apply however to loss or damage arising directly from Landlord's willful misconduct. Without limiting the foregoing, if Landlord arranges for the parking areas to be operated by an independent contractor not affiliated with Landlord, Tenant acknowledges that Landlord shall have no liability for claims arising through acts or omissions of such independent contractor. Tenant and Tenant's Parties each hereby voluntarily releases, discharges, waives and relinquishes any and all actions or causes of action for personal injury or property damage occurring to Tenant or any of Tenant's Parties arising as a result of parking in the Parking Facility, or any activities incidental thereto, wherever or however the same may occur, and further agrees that Tenant will not prosecute any claim for personal injury or property damage against Landlord or any of its officers, agents, servants or employees for any said causes of action and in all events, Tenant agrees to look first to its insurance carrier and to require that Tenant's Parties look first to their respective insurance carriers for payment of any losses sustained in connection with any use of the Parking Facility. Tenant hereby waives on behalf of its insurance carriers all rights of subrogation against Landlord or any Landlord Entities.

39.1.5 Tenant's right to park as described in this Article and this Lease is exclusive to Tenant and shall not pass to any assignee or sublessee without the express written consent of Landlord other than any assignee or sublessee where Landlord's consent is not required for the assignment or sublet pursuant to Section 9. Such consent is at the sole discretion of the Landlord.

39.1.6 In the event any surcharge or regulatory fee is at any time imposed by any governmental authority with reference to parking, Tenant shall (commencing after two (2) weeks' notice to Tenant) pay, per parking pass, such surcharge or regulatory fee to Landlord in advance on the first day of each calendar month concurrently with the month installment of rent due under this Lease. Landlord will enforce any surcharge or fee in an equitable manner amongst the Building tenants.

39.2 If Tenant violates any of the terms and conditions of this Article, the operator of the Parking Facility shall have the right to remove from the Parking Facility any vehicles hereunder which shall have been involved or shall have been owned or driven by parties involved in causing such violation, without liability therefor whatsoever. In addition, Landlord shall have the right to cancel Tenant's right to use the Parking Facility pursuant to this Article upon ten (10) days' written notice, unless within such ten (10) day period, Tenant cures such default. Such cancellation right shall be cumulative and in addition to any other rights or remedies available to Landlord at law or equity, or provided under this Lease.

40. LIMITATION OF LANDLORD'S LIABILITY. Redress for any claim against Landlord under this Lease shall be limited to and enforceable only against and to the extent of Landlord's interest in the Building. The obligations of Landlord under this Lease are not intended to be and shall not be personally binding on, nor shall any resort be had to the private properties of, any of its or its investment manager's trustees, directors, officers, partners, beneficiaries, members, stockholders, employees, or agents, and in no case shall Landlord be liable to Tenant hereunder for any lost profits, damage to business, or any form of special, indirect or consequential damages.

41. EXTENSION OPTION. Tenant shall, *provided* the Lease is in full force and effect and there is no uncured Event of Default at the time of notification or commencement, have one (1) option to extend the Term of this Lease as to the entire Premises for a term of five (5) years (the "**Extension Term**"), on

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the same terms and conditions set forth in the Lease, except as modified by the terms, covenants and conditions as set forth below:

41.1 If Tenant elects to exercise said option, then Tenant shall provide Landlord with written notice no earlier than the date which is fifteen (15) months prior to the expiration of the then current Term of the Lease but no later than the date which is twelve (12) months prior to the expiration of the then current Term of this Lease. If Tenant fails to provide such notice, time being of the essence, Tenant shall have no further or additional right to extend or renew the term of the Lease.

41.2 The Annual Rent and Monthly Installment in effect at the expiration of the then current term of the Lease shall be increased for the Extension Term as hereinafter provided. The Annual Rent and Monthly Installment for the Extension Term shall be increased to equal the then current fair market rental for comparable space in similar buildings in the same rental market as of the date the applicable Extension Term is to commence, taking into account the specific provisions of the Lease which will remain constant. Landlord shall advise Tenant of the new Annual Rent and Monthly Installment for the Premises no later than thirty (30) days after receipt of Tenant's written request to exercise an Extension Term. Said request shall be made no earlier than thirty (30) days prior to the first date on which Tenant may exercise its option under this Paragraph. Said notification of the new Annual Rent may include a provision for its escalation to provide for a change in fair market rental between the time of notification and the commencement of the extension term. If, on or before the date which is 270 days prior to the commencement of the applicable Extension Term, Tenant has not agreed with Landlord's determination of the new Annual Rent after negotiating in good faith, either party may elect by notice (the "Arbitration Notice") to the other party to have the new Annual Rent arbitrated as described as follows.

41.3 If either party sends the Arbitration Notice, then such new Annual Rent shall be determined as follows: Landlord and Tenant shall each appoint a qualified MAI appraiser doing business in the area and, in turn, those two (2) independent MAI appraisers shall appoint a third (3rd) MAI appraiser and the majority shall decide the new Annual Rent for the Premises as of the commencement of the applicable Extension Term, which determination shall be consistent with the second sentence of Section 41.2 above and shall be binding on Landlord and Tenant. Landlord and Tenant shall equally share in the expense of this appraisal.

41.4 A qualified MAI appraiser shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and life sciences space in the greater Cambridge, Massachusetts metropolitan area, or (B) a licensed commercial real estate broker with not less than 15 years' experience representing landlords and/or tenants in the leasing of office and life sciences space in the greater Cambridge, Massachusetts metropolitan area; (ii) devoting substantially all of his or her time to professional appraisal or brokerage work, as applicable, at the time of appointment; and (iii) shall be in all respects impartial and disinterested.

In no event shall the Annual Rent and Monthly Installment for any option period be less than the Annual Rent and Monthly Installment in the preceding Term and escalating each Lease Year by 3%.

41.5 Except as set forth below, the option to extend the Term for the Extension Term is not transferable; the parties hereto acknowledge and agree that they intend that the aforesaid option to extend the Term of this Lease shall be "personal" to the originally-named Tenant as set forth above and that in no event will any assignee or sublessee have any rights to exercise the aforesaid option to extend, other than an assignee who has consummated a Permitted Transfer.

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IN WITNESS WHEREOF, Landlord and Tenant have executed the Lease as of the Lease Reference Date set forth above.

LANDLORD:

321 SUMMER STREET LLC, a Delaware limited liability company

By: /s/ David Crane
Name: David Crane
Title: Vice President

Dated: December 11, 2019

By: /s/ Stephen J. George
Name: Stephen J. George
Title: Managing Director

Dated: December 13, 2019

TENANT:

INOZYME PHARMA, INC., a Delaware corporation

By: /s/ Axel Bolte
Name: Axel Bolte
Title: Chief Executive Officer

Dated: December 9, 2019

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Exhibit 21.1

Subsidiaries of the Registrant

Name of Subsidiary	Jurisdiction of Incorporation
Inozyme Securities Corp.	Massachusetts
Inozyme Pharma Ireland Limited	Ireland