

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

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

INHIBIKASE THERAPEUTICS, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2836
(Primary Standard Industrial
Classification Code Number)

26-3407249
(I.R.S. Employer
Identification Number)

3350 Riverwood Parkway SE, Suite 1900
Atlanta, GA 30339
(678) 392-3419

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Milton H. Werner, Ph.D.
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Inhibikase Therapeutics, Inc.
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 ☐
Non-accelerated filer ☒

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 pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(2)
Common Stock, \$0.001 par value per share	\$51,980,000.00	\$5,671.02
Representative's Warrants (3)	—	—
Common Stock issuable upon exercise of Representative's Warrants (4)	\$2,825,000.00	\$308.21
Total	\$54,805,000.00	\$5,979.23

- (1) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) of the Securities Act of 1933, as amended (the "Securities Act"). In accordance with Rule 416 under the Securities Act, the registrant is also registering hereunder an indeterminate number of shares of common stock that may be issued as a result of stock splits, stock dividends or similar transactions. Also includes the offering price of additional common stock that the underwriters have the option to purchase to cover over-allotments, if any.
- (2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum offering price of all securities being registered.
- (3) No fee required pursuant to Rule 457(g).
- (4) We have agreed to issue to the representative of the underwriters warrants to purchase the number of shares of our common stock (the "Representative's Warrants") in the aggregate equal to five percent (5%) of the shares of our common stock to be issued and sold in this offering (excluding shares issuable upon exercise of the over-allotment option described herein). The Representative's Warrants are exercisable for a price per share equal to 125% of the public offering price. As estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g), the proposed maximum aggregate offering price of the Representative's Warrants is \$2,825,000, which is equal to 125% of \$2,260,000 (5% of \$45,200,000).

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, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary 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 preliminary prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION

DATED JUNE 11, 2021

8,000,000 Shares

Common Stock



Inhibikase Therapeutics, Inc.

This is a firm commitment public offering of 8,000,000 shares of common stock, par value \$0.001 per share, of Inhibikase Therapeutics, Inc. based on an assumed public offering price of \$5.65 per share (which is based on the last reported sales price of our common stock of \$5.65 on June 7, 2021). The actual public offering price per share of common stock will be determined between us and the representative of the underwriters at the time of pricing, and may be at a discount to the current market price. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final offering price.

Our common stock is listed on the Nasdaq Capital Market ("Nasdaq") under the symbol "IKT." On June 7, 2021, the last reported sale price of our common stock was \$5.65 per share, which we have used as an assumed offering price in this prospectus.

We are an "emerging growth company" and a "smaller reporting company," each as defined under the federal securities laws and, as such, have elected to comply with certain reduced reporting requirements for this prospectus and may elect to do so in future filings. See the section titled "Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 15 of this prospectus and elsewhere in this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense. The securities are not being offered in any jurisdiction where the offer is not permitted.

	Per Share	Total(1)
Public offering price	\$	\$
Underwriting discounts and commissions(1)	\$	\$
Proceeds to us, before expenses	\$	\$

- (1) Assumes no exercise of the underwriters' option to purchase additional shares of our common stock as described below. The registration statement, of which this prospectus is a part, also registers for sale warrants to purchase 400,000 shares of our common stock to be issued to the representative of the underwriters. We have agreed to issue the warrants to the representative of the underwriters as a portion of the underwriting compensation payable to the underwriters in connection with this offering. See "Underwriting" beginning on page 179 for a description of compensation payable to the underwriters.

We have granted a 45-day option to the representative of the underwriters to purchase up to 1,200,000 additional shares of common stock from us solely to cover over-allotments, if any, at the public offering price, less underwriting discounts and commissions.

The underwriters expect to deliver the shares of common stock to purchasers on or about , 2021, subject to customary closing conditions.

ThinkEquity
a division of Fordham Financial Management, Inc.

JonesTrading

The date of this prospectus is , 2021.

LEAD THERAPY

IKT-148009
Inhibikase Therapeutics

Engages the c-Abl Target in the Brain and GI and Nearly Clears Pathological α-Synuclein

Low toxicity in animals, brain penetrant c-Abl inhibitor in clinical development

Starting with clinically validated targets, Inhibikase is developing c-Abl kinase inhibitor product candidates shown in pre-clinical models of Parkinson's Disease to halt progression and restore function. These products are intended to be administered chronically for the treatment of CNS diseases.

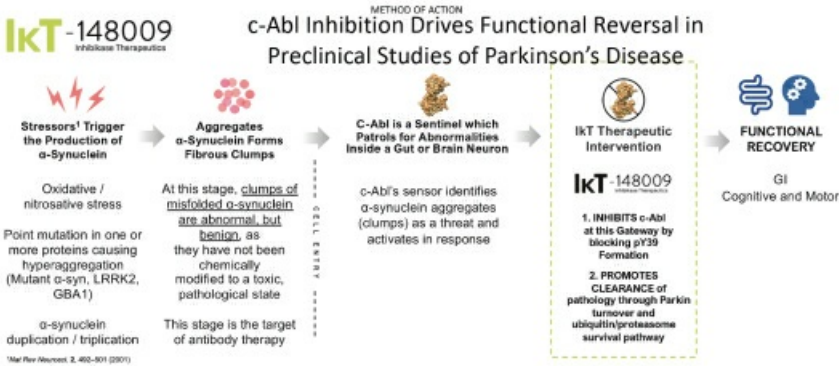


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We and the underwriters have not authorized anyone to provide you any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you, and you should rely only on the information contained in this prospectus or in any such free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are not making an offer to sell nor a solicitation of any offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside of 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 the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements included elsewhere in this prospectus. It does not contain all of the information that may be important to you and your investment decision. You should carefully read this entire prospectus, including the matters set forth under the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes. In this prospectus, unless context requires otherwise, references to “we,” “us,” “our,” or “the Company” refer to Inhibikase Therapeutics, Inc. See the section titled “Glossary” starting at page 186 for definitions of key scientific and technical terms used in this prospectus.

Overview

We are a clinical stage pharmaceutical company developing therapeutics for Parkinson’s Disease, or PD, and related disorders that arise inside and outside of the brain. In 2021, we commenced clinical development of IkT-148009, a small molecule Abelson Tyrosine Kinase inhibitor we believe can modify the course of Parkinson’s disease and its manifestation in the gastrointestinal tract, or GI. Results to date of our ongoing Phase 1 Single and Multiple Ascending Dose escalation study (SAD and MAD, respectively) in older and elderly healthy volunteers have revealed important insights into the pharmacology of IkT-148009 in human subjects. We anticipate enrolling up to 112 subjects in the Phase 1 study. To date, 40 subjects have received IkT-148009. Results from the Phase 1 study have shown that IkT-148009 has a half-life of greater than 24 hours, and just a 25 mg once daily oral dose reached exposures that are consistent with the exposure to IkT-148009 that resulted in therapeutic efficacy in animal models of progressive Parkinson’s disease. This has led to an acceleration of the clinical development program by more than 6 months. Subject to discussions with the FDA, we plan to initiate dosing in a Parkinson’s patient population as part of the Phase 1 MAD study. Clinical development of IkT-148009 for the GI complications in PD patients will cross-reference the Phase 1 Study of IkT-148009 for the treatment of PD. In support of our clinical development program, we have now completed 3 months of our chronic toxicology program of IkT-148009 in both rat and monkey. These toxicology studies will continue for 3 additional months in rat and 6 additional months in monkey. We have also advanced clinical batch manufacturing and pill formulation for our platform prodrug technology involving IkT-001Pro. This technology is detailed below.

Our programs utilize small molecule, oral protein kinase inhibitors to treat PD and its GI complications. We have shown in animal models of progressive disease that IkT-148009 is a brain penetrant Abelson tyrosine kinase, or c-Abl, inhibitor that halts disease progression and reverses functional loss in the brain and reverses neurological dysfunction in the GI tract. The ability to halt progression and restore function was shown in animal models of progressive disease that mimic the rate of disease progression and the extent of functional loss in the brain and/or the GI tract as found in patients with PD. We believe our therapeutic approach is disease-modifying. Our understanding of how and why PD progresses has led us to believe that functional loss in Parkinson’s patients may be at least partially reversed. Based on the measurements in animal models, we believe patients treated with IkT-148009 may have their disease progression slowed or halted, we may see a progressive reduction in the need for symptomatic or supportive therapy and/or we may ultimately eliminate the need for symptomatic therapy. However, it is unknown whether the disease modification seen in the animal models will occur in the human disease following treatment with IkT-148009.

In our opinion, the multi-decade failures in the treatment of neurodegenerative diseases such as PD result from a lack of understanding of the biochemistry of the disease processes involved. Neurodegeneration is marked by a progressive degeneration and loss of function of neurons which send and receive signals to and from the brain. Historically, the cause of a neurodegenerative disease was thought to be a “plaque” made up of a misfolded and/or aggregated protein(s). Therapeutic approaches, therefore, sought to remove “plaque” from the brain. A “plaque”-focused treatment strategy has failed to alter the course of Parkinson’s disease in two Phase 2 trials that reported results in 2020 and 2021. We believe we are different. We identified the proteins that become dysfunctional in a disease pathway and sought to understand how a dysfunctional protein causes disease. We

believe our approach to PD and other neurological diseases has identified the underlying cause of disease and led to an understanding of how individual proteins are linked together to define the disease process. Using this strategy, we believe we have discovered at least one enzyme that plays a pivotal role in the disease process for PD, the Abelson Tyrosin Kinase c-Abl. We have developed novel protein kinase inhibitors against c-Abl, which we believe can alter the disease course for PD. c-Abl chemically modifies one of the “plaque” proteins in PD, known as alpha-synuclein. Chemical modification creates what we believe to be the true toxic entity of the disease. Treatment with IkT-148009 may prevent chemical modification and, at least in animal models of progressive disease, leads to clearance of the toxic form of alpha-synuclein from the affected neurons.

In addition to programs in PD, our platform drug discovery and delivery technologies have identified additional opportunities, including a potential treatment for bacterial or viral infections in the brain using a single agent at fixed dose, and an oncology opportunity in stable-phase Chronic Myelogenous Leukemia, or CML. Our product for CML, IkT-001Pro, is a prodrug of the anticancer agent Imatinib. A prodrug is a compound that, after administration, is metabolized by the body into a pharmacologically active drug. Imatinib is an FDA designated Orphan Drug and is the standard-of-care treatment for stable-phase CML. In the United States, orphan drug designation entitles a party to incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. We intend to submit an IND to initiate clinical development for IkT-001Pro for the treatment of CML in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design and execution of the clinical development program and additional funding, we believe that clinical development of IkT-001Pro could possibly be completed in 2022. We intend to submit a new drug application, or NDA, for IkT-001Pro pursuant to Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which specifies the requirements for approval. This pathway would allow us to rely, in part, on data in the public domain or the FDA’s prior conclusions regarding the safety and effectiveness of an approved compound. Consistent with FDA guidance on the 505(b)(2) pathway, we will seek input from the FDA as to what should be included in the application prior to submission of the 505(b)(2) application. Pursuit of this oncology opportunity will seek to validate the pharmacology advantage of our prodrug technology in a well understood patient population with an approved drug substance. If we are able to validate IkT-001Pro in oncology, we will evaluate whether the pharmacology advantages we discover about IkT-001Pro could be applied to novel drug substances, such as IkT-148009.

We believe we are one of the pioneers of the application of protein kinase inhibitors to non-oncology indications, including neurodegeneration and infectious diseases, as well as their more traditional role in the treatment of cancer. As of the date of this prospectus, more than 50% of the Company’s total funding has been received from Private, State and Federal granting agencies, including the National Institutes of Health, the Department of Defense and the Michael J. Fox Foundation, with the balance the result of equity sales in the private and public sectors. Private, State and Federal granting agencies use extensive scientific peer review in deciding which projects to fund that could impact human disease. Our ability to advance the Company on the basis of scientific peer review reflects the potential our scientific peers see for the possible success of our therapeutic programs.

In the 12 months following this offering, the Company anticipates completing its Phase 1 study of IkT -148009 in older and elderly healthy subjects, completing the ongoing chronic toxicology studies in rats and monkeys for IkT-148009 to enable chronic drug administration in Parkinson’s patients, completing a Phase 1b extension study of IkT-148009 in Parkinson’s patients and initiating its Phase 2 efficacy study in Parkinson’s patients. Advancement of IkT-148009 into Phase 1b and Phase 2 proof-of-concept is subject to review of the safety, tolerability and toxicology studies by the FDA and agreement on the protocol to be proposed for these trials and additional funding. We further intend to advance IkT-001Pro through clinical development, possibly completing clinical development in 2022, subject to additional funding.

Our Programs

Our portfolio is focused on developing protein kinase inhibitors to treat PD in the brain and GI tract that arise from dysfunctional alpha-synuclein in PD patients. Using IkT-148009, we intend to clinically evaluate the

impact of c-Abl inhibition on newly diagnosed PD patients, patients early in the course of PD, and PD patients with GI complications. We are pursuing clinical development using a sequential Phase 1/Phase 2 development approach, with the details of the Phase 2 studies subject to agreements with the FDA regarding trial design and the outcome of the Phase 1 clinical trial. The Phase 1/Phase 2 development program, subject to FDA approval, would be followed with one or more Phase 3 clinical trials that we believe could lead to completion of the clinical development program in 2023 or 2024. IKT-148009 is intended to treat PD in treatment-naïve and early-stage PD patients, along with GI complications such as difficulty in swallowing, or dysphagia, and for treatment of neurogenic constipation.

We have also developed an alternate delivery approach for oral kinase inhibitors by converting them into prodrugs. We developed IKT-001Pro to alter the way a protein kinase inhibitor is absorbed in the GI tract and to address certain side effects of Imatinib-therapy in blood and stomach cancers. We believe demonstrating the benefits of this technology in a well-known patient population will validate the utility of our prodrug technology. We plan to submit an IND for IKT-001Pro in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design, positive clinical results and additional funding, we believe that clinical development could possibly be completed in 2022. Approval of IKT-001Pro would be sought pursuant to the FDA's 505(b)(2) pathway. If approved by the FDA, we would seek to partner this program with a pharmaceutical company to produce and market IKT-001Pro to the CML treatment community. Depending on the terms of the partnership, we may realize some revenue from this partnership that could financially contribute to our primary efforts in neurodegenerative diseases. Primary research with payors suggests an accessible market exists for IKT-001Pro in stable-phase CML patients. Successful validation of our prodrug approach in IKT-001Pro will potentially enable extension of this technology to other development programs, including IKT-148009.

Additional research programs will seek to develop medications for other alpha-synuclein-related diseases, specifically Dementia with Lewy Body, or DLB, and Multiple System Atrophy, or MSA, as well as our programs in anti-infectives that target host-factors to block viral or bacterial infections in the brain with a single agent at fixed dose. Our first application intends to treat infectious disease by suppressing John Cunningham virus, or JCV, virus infection, the cause of Progressive Multifocal Leukoencephalopathy, or PML.

Our pipeline of research and development programs is outlined below.

CLINICAL DEVELOPMENT ¹								BIOMARKER ²		
Drug Target	Drug candidate	Modality	Disease Indication	PRECLINICAL DEVELOPMENT	PHASE 1	PHASE 2	PHASE 3	Preclinical target engagement	Clinical target engagement	Can be used for patient selection
Neurodegeneration										
c-Abl	IKT-148009	Small molecule	Parkinson's Disease: Treatment Naïve					Validated	Validating	Yes
c-Abl	IKT-148009	Small molecule	Parkinson's Disease: Early Stage			4 Indications Pursued Through 2 INDs in PD. Shares Same Phase 1's		Validated	Validating	Yes
c-Abl	IKT-148009	Small molecule	Neurogenic Constipation					Validated	Validating	Yes
c-Abl	IKT-148009	Small molecule	Dysphagia					Validated	Validating	Yes
c-Abl	IKT-148009	Small molecule	Multiple System Atrophy			New IND to be prepared and filed 4Q21. Shares Same Phase 1's		Validated	Validating	Yes
Oncology										
BCR-Abl	IKT-001Pro	Small molecule	Stable-phase CML (orphan indication)		505(b)(2) Path to Market			Validated	Validated	Yes
Research Phase										
c-Abl	IKT-148x	Small molecule	Dementia with Lewy Body					Validated	Validating	Unknown
c-Abl	IKT-148x	Small molecule	Multiple System Atrophy					Validated	Validating	Unknown
c-Abl	IKT-1427	Small molecule	Progressive multifocal leukoencephalopathy					Validated	Validating	Yes

- (1) 'Clinical Development' progress bars represent the current state of the indicated programs. Blue arrows represent completed or in progress studies; white arrows represent planned approaches for future clinical studies.
- (2) Four indications will be pursued for IKT-148009 in PD, which will be pursued through two INDs, one focused on treatment in the brain in treatment-naïve or early-stage patients and the second focused on GI complications of PD patients. IKT-148009 will be pursued in a fifth indication in Multiple System Atrophy and cross-reference the same Phase 1 study in PD but will be pursued through a separate IND filing planned for later this year. The Company anticipates initiating a Phase 1b study in treatment naïve and early stage Parkinson's patients with GI complications for IKT-148009 in the next 3 months, subject to additional financing and FDA discussions. The Phase 2 study may be shared in whole or in part for the four indications in PD and its GI complications. IKT-148x refers to a series of portfolio compounds being evaluated for these indications in preclinical models that are from the same chemical family as IKT-148009.
- (3) For biomarker status, 'Validated' refers to proof of target engagement in the target tissue which has been performed using rodent tissues and fluids. We are currently developing methods for using clinical samples for validating our ability to confirm target engagement in patients. 'Validating' in this context indicates ongoing efforts to prove target engagement using proprietary sources and methods under development from human tissues and fluids. Target engagement measures if and to what extent a compound occupies its target. 'Can be used for patient selection' refers to our ability to use one or more markers we are currently 'Validating' to screen patients for the presence of that marker as a means of defining the patients most likely to benefit from the proposed treatment.

Our Strategy

- **Identification and characterization of the pathway(s) governing neurodegenerative disease:** We select our therapeutic targets by identification and characterization of disease pathways that we believe drive neurodegenerative disease and elucidate the biochemistry of pathway proteins to enable small molecule targeting to treat PD and related disorders, often involving clinically validated targets.
- **Proprietary method of drug discovery in neurodegeneration:** We use a Re-engineering Approach with Metabolism Preserved method, or RAMP™, to imprint the properties we desire from an approved medication onto a new molecular entity for treatment inside and outside of the brain. Using RAMP™, we believe we can design the pharmacology profile of our product candidates using an existing medication as a template.
- **Delivering neurodegenerative treatments as a prodrug to improve pharmacology and safety:** A prodrug is a compound that, after administration, is metabolized by the body into a pharmacologically active drug. Our prodrug technology has been shown in animal models to suppress GI and other adverse events commonly associated with oral protein kinase inhibitors and improve drug absorption from the GI tract. We believe this technology enhances drug distribution into the target tissues, which we believe will improve safety and tolerability of our protein kinase inhibitors for neurodegenerative and other diseases. We must demonstrate any safety benefit using this prodrug technology in clinical trials in collaboration and consultation with the FDA.

We believe that the application of these principles will significantly increase the probability of our success and will shorten the time required to bring effective therapeutics to patients with neurodegenerative and other diseases.

Our Indications

Parkinson's Disease and other diseases caused by dysfunctional alpha-synuclein PD is the second most prevalent neurodegenerative disease of the Central Nervous System, or CNS, with 7,000,000 to 10,000,000 cases worldwide. Historically characterized by the progressive loss of dopamine-secreting neurons near the brainstem, PD's pathology is now recognized to be a global disease of the brain as well as the autonomic nervous system, including nerves in the GI tract. We believe the development of widespread pathology in PD arises from damage caused by c-Abl activation and creation of toxic alpha-synuclein. Our lead candidate for PD, IKT-148009, has been shown in animal models to be a selective, small molecule protein kinase inhibitor of c-Abl that is brain penetrant. We believe c-Abl is crucial for proper neuronal development, and plays a role in the functional integrity of healthy, adult neurons. Using new animal models, we and our collaborators have shown that PD may better be described as a disease of hyperactivation of c-Abl, which acts on dysfunctional alpha-synuclein to drive neurodegeneration inside and outside of the brain. C-Abl acts as a checkpoint, determining whether dysfunctional alpha-synuclein is tagged to be enzymatically degraded and discarded, or whether dysfunctional alpha-synuclein commits a neuron to degeneration and death. Inhibition of c-Abl by IKT-148009, our lead clinical candidate, blocks neurodegeneration in progressive disease in animal models and significantly reverses functional loss following therapeutic administration. It is unknown whether disease modification will occur in humans following treatment with IKT-148009. We anticipate up to five clinical indications using IKT-148009 will emerge from our clinical development programs that may modify the disease course in the brain and/or GI tract.

Multiple System Atrophy (MSA). Multiple system atrophy (MSA) is a neurodegenerative movement disorder affecting approximately 15,000 to 50,000 people in the United States. It occurs sporadically in the fifth or sixth decade of life with a variable combination of parkinsonian, cerebellar, and autonomic features that rapidly progress to dangerous morbidity. Research toward potential treatments for MSA, as with many rare diseases, has been limited, resulting in a paucity of knowledge regarding its underlying causes, and there are no currently effective treatments to halt pathological progression. Initial clues into the origins of MSA came from studying alpha-synuclein and its hallmark histopathology in the brains of patients with MSA. These studies established that MSA is characterized by the presence of glial cytoplasmic inclusions (GCIs) that reside predominantly in oligodendroglial cells. GCIs are comprised of abnormal conformations of alpha-synuclein, the same protein that accumulates in neurons and Lewy Bodies in Parkinson's disease (PD) and Dementia with Lewy Bodies (DLB). Finding similarities between MSA and PD is a complicated task, as alpha-synuclein mutations clinically and pathologically resemble MSA, while others have features of frontal lobe dementia with severe pathology. Further, some phenotypes of MSA have little or no clinically pertinent parkinsonism, and instead present with cerebellar ataxia or dysautonomia, most frequently as orthostatic hypotension. As we have shown in a recent publication MSA shares the hallmarks of c-Abl activation and alpha-synuclein chemical modification with Parkinson's Disease, thus we believe that c-Abl inhibitor therapy is a promising treatment for this disease. We intend to pursue development of IKT-148009 for the treatment of MSA. We plan to submit an IND in the fourth quarter of 2021. It is our intention to cross-reference the Phase 1 data in PD patients. Subject to agreement with the FDA, we believe the MSA clinical trial program could begin with a Phase 2 study. In addition, we are evaluating other compounds in our portfolio, termed IKT-148x, for the treatment of MSA.

Chronic Myelogenous Leukemia (CML). The earliest application of our prodrug technology is to treat stable-phase CML, and we are using this program to validate our prodrug technology in an established patient population prior to its application to neurodegenerative disease. IKT-001Pro is a prodrug of the anti-cancer agent Imatinib that we believe may offer distinct safety advantages over the generic and branded forms of Imatinib to treat CML and related diseases. Up to one-half of Imatinib patients experience on-dosing side effects in the GI tract that diminish adherence to daily therapy. Failure to adhere to therapy significantly reduces likelihood of

treatment success. In non-human primates, IKT-001Pro suppressed these GI side effects on dosing, resulting in a 5-fold increase in the No Observed Adverse Event Level, or NOAEL, relative to the NOAEL of Imatinib itself in non-human primates. NOAEL is the lowest level of exposure to a drug at which there are no adverse effects. In both a solid and liquid tumor model in mice, IKT-001Pro was just as active as Imatinib, but at 15% lower dose, because the prodrug more efficiently delivers Imatinib to the target tissue in these models. Since the frequency and severity of side effects from Imatinib vary linearly with oral dose, this data suggests further safety improvements in Imatinib treatment might be realized through dose lowering without sacrificing efficacy. We are preparing an IND for IKT-001Pro and plan a submission to the FDA in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design, execution of the clinical development program, positive clinical results and additional funding, we believe that clinical development could possibly be completed in 2022. Approval of IKT-001Pro would be sought pursuant to an NDA submitted under Section 505(b)(2) of the FDCA since IKT-001Pro is an alternate form of delivery of an approved drug substance. If approved by the FDA, we would seek to partner this program with a pharmaceutical company to produce and market IKT-001Pro to the CML treatment community. Depending on the terms of the partnership, we may realize some revenue from this partnership that could financially contribute to our primary efforts in neurodegenerative disease.

We have submitted data and information for IKT-148009 in PD and IKT-001Pro in oncology to two FDA divisions: Neurology Division I and the Division of Hematology Products, Office of Hematology and Oncology Products, respectively. For each division, we presented preclinical toxicology data in comparison to Imatinib, because comparative toxicology aids in predicting the safety margin for our lead products in human patients. This comparative toxicology approach is being used to seek early entry into the target patient population, because our compounds closely mirror Imatinib in terms of Absorption, Distribution, Metabolism and Elimination, or ADME, properties. Using this comparative toxicology approach, we believe we have lowered the risk-profile for our novel product candidates during clinical development. See “Business — Government Regulation” elsewhere in this prospectus for an overview of the drug regulatory approval process.

Research Programs in Other Neurological Disorders: In addition to the programs in PD and CML, we are evaluating development opportunities with other molecules that emerged from the RAMP™ discovery program. These opportunities include research programs in a Parkinson’s-related disease, Dementia with Lewy Body or DLB, that shares with Parkinson’s Disease the activation of c-Abl and the formation of alpha-synuclein aggregates that are chemically modified. DLB is related to Parkinson’s Disease but lacks an early manifestation of motor neuron dysfunction. It is characterized by progressive loss of cognitive function.

We have also begun animal studies related to two orphan diseases, Multiple System Atrophy (MSA) and Progressive Multifocal Leukoencephalopathy (PML). An orphan disease is defined by the FDA as a disease or condition with a patient population of fewer than 200,000 in the United States. MSA is a rare disease characterized by c-Abl activation and alpha-synuclein chemical modification, but unlike Parkinson’s Disease itself, the chemically modified alpha-synuclein does not arise in neurons, rather, aggregates of chemically modified alpha-synuclein arise in oligodendroglial cells. There are approximately 15,000 to 50,000 cases of MSA in the United States. MSA is characterized by simultaneous central and autonomic nervous system failures across multiple organ systems. As MSA shares the hallmarks of c-Abl activation and alpha-synuclein chemical modification with Parkinson’s Disease, we believe that c-Abl inhibitor therapy holds promise as a treatment and we intend to evaluate IKT-148009 for MSA along with other compounds in our portfolio, termed IKT-148x. We are working in collaboration with experts at Rush University on this research program.

PML is a rare neurological infection that arises from the John Cunningham virus, or JCV, a human polyomavirus. JCV resides in most adult humans in both the kidney and bone marrow, but, when a patient undergoes treatment for certain autoimmune disorders, like MS or Crohn’s Disease, such treatments can stimulate JCV migration into the brain and result in a progressive, fatal disorder. PML is exceedingly rare and generally only arises in patients who have an underlying suppression of viral immune responses or take a primary

treatment whose mode of action is to suppress cellular immunity. We are working in collaboration with experts at Louisiana State University to explore this development opportunity.

We currently have worldwide commercialization rights to all of our development programs and IP protection until 2033 or later.

Our management team and board of directors are critical components for the development of our business model and the execution of our strategy. We are led by executives with an average of over 20 years of relevant senior leadership experience, including executives with significant experience developing and commercializing branded and generic pharmaceuticals at large multinational pharmaceutical and biotech companies. Our team has significant experience in commercialization of pharmaceutical products, translational science, drug evaluation, clinical development, regulatory affairs and business development.

Impact of the COVID-19 Pandemic on Our Operations

The novel coronavirus SARS-Cov2, or COVID-19, pandemic is causing significant, industry-wide delays in clinical trials as of the date of this prospectus. There are multiple causes of these delays, including reluctance of patients to enroll or continue in trials for fear of exposure to COVID-19, local and regional shelter-in-place orders and regulations that discourage, hamper, or prohibit patient visits, healthcare providers and health systems shifting away from clinical trials toward the acute care of COVID-19 patients and the FDA and other regulators making product candidates for the treatment of COVID-19 a priority over product candidates unrelated to the pandemic. As of the date of this prospectus, the COVID-19 pandemic has had an impact upon our operations, although we believe that impact is not material.

The COVID-19 pandemic did not cause a delay in the enrollment of our trials as of the date of this prospectus. However, after enrollment in our trials, if patients contract COVID-19 during participation in our trials or are subject to isolation or shelter in place restrictions, this may cause them to drop out of our trials, miss scheduled doses or follow-up visits or otherwise fail to follow trial protocols. If patients are unable to follow the trial protocols or if our trial results are otherwise affected by the consequences of the COVID-19 pandemic on patient participation or actions taken to mitigate COVID-19 spread, the integrity of data from our trials may be compromised or not accepted by the FDA or other regulatory authorities, which could impact or delay a clinical development program. The COVID-19 pandemic may also impact manufacturing and/or distribution of materials necessary for the completion of our clinical trials in the future.

We note the high level of difficulty in projecting the effects of COVID-19 on our programs and our company, given the rapid and dramatic evolution in the course and impact of the pandemic and the societal and governmental response to it.

Summary of Risks Associated with Our Business

Our business is subject to numerous risks and uncertainties that you should consider before investing in our company. These risks are described more fully in the section titled “Risk Factors” in this prospectus. These risks include, but are not limited to, the following:

- We are a clinical stage drug development company with limited resources, a limited operating history and have no products approved for commercial sale, which may make it difficult to evaluate our current business and predict our future success and viability.
- The ongoing COVID-19 pandemic could materially affect our operations, as well as the business or operations of third parties with whom we conduct business. Our business could be adversely affected by the effects of current and other future health epidemics or pandemics in regions where we or third parties on which we rely have significant business operations.

- If we are unable to successfully raise additional capital, our future clinical trials and product development could be limited and our long-term viability may be threatened.
- Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements for the year ended December 31, 2020 included in this prospectus.
- Drug development is a highly uncertain undertaking and involves a substantial degree of risk. We have never generated any revenue from product sales, we may never generate any revenue from product sales, and we may fail to generate further revenue from grants or contracts or to be profitable.
- We have incurred significant net losses since our inception and anticipate that we will continue to incur net losses for the foreseeable future.
- If we fail to obtain additional financing, we may be unable to complete the development of and, if approved, commercialization of our product candidates.
- Due to the significant resources required for the development of our programs, and depending on our ability to access capital, we must prioritize development of certain product candidates. We may expend our limited resources on programs that do not yield a successful product candidate and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.
- Our business is highly dependent on the success of our initial product candidates targeting neurodegenerative diseases. All of our product candidates will require significant nonclinical and clinical development before we can seek regulatory approval for and launch a product commercially.
- We currently collaborate with various research institutions to perform the research and development activities needed to develop our products, and if we ever choose to or need to find alternative research institutions, we may not be able to do so at all or, if we are able to do so, it may be costly and may cause significant delays in the development and commercialization of our products.
- Research, development, and commercialization of pharmaceutical products are inherently risky. We are heavily dependent on the successful use of our RAMP™ drug discovery program and the product candidates that emerge from it and which are undergoing preclinical development. We cannot give any assurance that any of our product candidates will receive regulatory approval, which is necessary before they can be commercialized.
- Positive results from early preclinical and clinical studies of our product candidates are not necessarily predictive of the results of later preclinical studies and any current and future clinical trials of our product candidates. If we cannot show positive results or replicate any positive results from our earlier preclinical studies of our product candidates in our later preclinical studies and current and future clinical trials, we may be unable to successfully develop, obtain regulatory approval for and commercialize our product candidates.
- We have no history of completing clinical trials for novel drug substances or commercializing pharmaceutical products, which may make it difficult to evaluate the prospects for our future viability.
- We face significant competition in an environment of rapid technological and scientific change, and there is a possibility that our competitors may achieve regulatory approval before us or develop therapies that are safer, more advanced or more effective than ours, which may negatively impact our ability to successfully market or commercialize any product candidates we may develop and ultimately harm our financial condition.
- The regulatory approval processes of the FDA, European Medicines Agency, or EMA and comparable foreign regulatory authorities are lengthy, time consuming, and inherently unpredictable. If we are

ultimately unable to obtain regulatory approval for our product candidates, we will be unable to generate product revenue and our business will be substantially harmed.

- We currently rely on and expect to continue to rely on third parties to conduct our clinical trials and preclinical testing, as well as future research and clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, research, or testing.
- We expect to depend in whole or in part on collaborations with third parties for the research, development and commercialization of any product candidates we may develop. If any such collaborations are not successful, we may not be able to realize the market potential of those product candidates.
- We contract with third parties for the manufacture of materials for our research programs, preclinical studies and current clinical trial and expect to continue to do so for any future clinical trials and for commercialization of any product candidates that we may develop. This reliance on third parties carries and may increase the risk that we will not have sufficient quantities of such materials or product candidates that we may develop and commercialize, or that such supply will not be available to us at an acceptable cost, which could delay, prevent, or impair our development or commercialization efforts.
- We depend on third party suppliers for key raw materials used in the manufacturing processes for our product candidates, and the loss of these third party suppliers or their inability to supply us with adequate raw materials could harm our business.
- We currently rely on a small number of suppliers for manufacturing our product candidates.
- If we are unable to obtain and maintain patent protection for any product candidates we develop, our competitors could develop and commercialize products or technology similar or identical to ours, and our ability to successfully commercialize any product candidates we may develop, and our technology may be adversely affected.
- Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.
- Insiders will continue to have substantial influence over us after this offering, which could limit your ability to affect the outcome of key transactions, including a change of control.

Corporate Information

We were incorporated in Delaware in 2010 as a successor to a Georgia limited liability company, and commenced operations in September 2008. Our principal executive offices are located at 3350 Riverwood Parkway SE, Suite 1900, Atlanta, Georgia, 30339. We also maintain offices at One Marina Park Drive, Suite 1410, Boston, Massachusetts, 02210. Our telephone numbers are (678) 392-3419 and (617) 936-0184. Our website address is www.inhibikase.com. Information contained on our website is not incorporated by reference into this prospectus, and it should not be considered to be part of this prospectus.

We use Inhibikase Therapeutics, the Inhibikase Therapeutics logo, and other marks to represent us in the United States and other countries. We have applied to register our primary trademarks in our primary market, the United States. Although the applications have been approved by the Trademark Office, and were unopposed when they were published for opposition, they have not issued to registration, and will not be registered until we use them on products in at least clinical trials, and file the required statements of use with the Trademark Office. We have not applied to register our trademarks in any foreign country and do not know if they are available for use or registration outside of the United States. This prospectus contains references to our logo and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable

law, our rights to our logo and trade names or the rights of the applicable licensor. We do not intend our use or display of other entities' names, trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. As an “emerging growth company,” we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include, but are not limited to:

- requiring only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced “Management’s discussion and analysis of financial condition and results of operations” in our Securities Act of 1933, as amended, or the Securities Act, filings;
- reduced disclosure about our executive compensation arrangements;
- no non-binding advisory votes on executive compensation or golden parachute arrangements; and
- exemption from compliance with the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to Section 404(b) of the Sarbanes Oxley Act of 2002, or SOX.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an “emerging growth company.” We will continue to remain an “emerging growth company” until the earliest of the following: (i) the last day of the fiscal year following the fifth anniversary of the date of the completion of our December 2020 initial public offering; (ii) the last day of the fiscal year in which our total annual gross revenue is equal to or more than \$1.07 billion; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or the SEC.

We are also a “smaller reporting company” as defined in the Securities Exchange Act of 1934, as amended, or the Exchange Act, and have elected to take advantage of certain of the scaled disclosures available to smaller reporting companies. To the extent that we continue to qualify as a “smaller reporting company” as such term is defined in Rule 12b-2 under the Exchange Act, after we cease to qualify as an emerging growth company, certain of the exemptions available to us as an “emerging growth company” may continue to be available to us as a “smaller reporting company,” including exemption from compliance with the auditor attestation requirements pursuant to SOX and reduced disclosure about our executive compensation arrangements. We will continue to be a “smaller reporting company” until we have \$250 million or more in public float (based on our common stock) measured as of the last business day of our most recently completed second fiscal quarter or, in the event we have no public float (based on our common stock) or a public float (based on our common stock) that is less than \$700 million, annual revenues of \$100 million or more during the most recently completed fiscal year.

We may choose to take advantage of some, but not all, of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. In addition, the JOBS Act provides that an emerging growth company may take advantage of an extended transition period for complying with new or revised accounting standards, delaying the adoption of these accounting standards until they would apply to private companies. We have elected to avail ourselves of the extended transition period for complying with new or revised financial accounting standards. As a result of the accounting standards election, we will not be subject to the same implementation timing for new or revised accounting standards as other public companies that are not emerging growth companies which may make comparison of our financials to those of other public companies more difficult.

THE OFFERING	
Common stock offered by us	8,000,000 shares (or 9,200,000 shares if the underwriters exercise in full their option to purchase additional shares to cover over-allotments, if any)
Common stock to be outstanding after this offering	18,133,345 shares (or 19,333,345 shares if the underwriters exercise in full their option to purchase additional shares to cover over-allotments, if any)
Underwriters' option to purchase additional shares of common stock from us	1,200,000 shares (which may be purchased from us for 45 days from the date of this prospectus to cover over-allotments, if any)
Assumed offering price	\$5.65 per share (which was the last reported sale price of our common stock on the Nasdaq Capital Market on June 7, 2021)
Use of proceeds	We estimate that the net proceeds from our issuance and sale of our common stock in this offering will be approximately \$41.5 million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the representative of the underwriters exercises its option to purchase additional shares in full to cover over-allotments, if any, we estimate that our net proceeds will be approximately \$47.8 million. We currently anticipate using the net proceeds from this offering, together with our existing resources, as follows: (1) approximately \$1.2 million to fund the costs of our Phase 1b extension study for IkT-148009 in Parkinson's patients and to validate target engagement markers in the central and peripheral nervous system; (2) approximately \$6.0 million to fund production of up to 100 kg of IkT-148009 for Phase 1b and Phase 2 clinical studies; (3) approximately \$25 million to fund a Phase 2 efficacy trial of IkT-148009 in Parkinson's patients; (4) approximately \$2 million to fund the clinical dose calibration study of IkT-001Pro in healthy subjects; (5) approximately \$2 million to fund drug product production for IkT-001Pro; and (6) approximately \$5.3 million to fund general research and development activities, medicinal chemistry for additional molecules and IND-enabling studies, team building, working capital and other general corporate activities
Representative's Warrants	The registration statement of which this prospectus is a part also registers for sale warrants to purchase shares of our common stock which we will issue to the representative of the underwriters as a portion of the underwriting compensation payable to the underwriters in connection with this offering. The warrants will be exercisable for a four year period commencing one year from commencement of sales of the securities issued in this offering at an exercise price equal to 125% of the public offering price of the common stock. Please see

	“Underwriting — Representative’s Warrants” for a description of these warrants.
Risk Factors	See “Risk Factors” beginning on page 15 and the other information included in this prospectus for a discussion of factors you should carefully consider before investing in our securities.
Nasdaq Capital Market trading symbol	Our common stock is listed on the Nasdaq Capital Market under the symbol “IKT”.
You should carefully read the “Risk Factors” section of this prospectus for a discussion of factors that you should consider before deciding to invest in our common stock.	
The number of shares of our common stock to be outstanding after this offering is based on the 10,133,345 shares of our common stock outstanding as of June 7, 2021, and excludes the following:	
<ul style="list-style-type: none">• 3,574,656 shares of common stock issuable upon exercise of options to purchase shares of common stock outstanding as of June 7, 2021, with a weighted-average exercise price of \$2.43 per share;• 721,913 shares of common stock issuable upon exercise of warrants to purchase shares of common stock outstanding as of June 7, 2021, with a weighted-average exercise price of \$5.83 per share; and• 8,354,072 shares of common stock reserved for future issuance as of June 7, 2021 under our 2020 Equity Incentive Plan, or 2020 Plan.	
Unless otherwise indicated, this prospectus reflects and assumes the following:	
<ul style="list-style-type: none">• no exercise of outstanding options or warrants;• no exercise of the representative’s warrants to be issued upon consummation of this offering at an exercise price equal to 125% of the offering price of the common stock; and• no exercise by the underwriters of their option to purchase up to 1,200,000 additional shares of our common stock from us to cover over-allotments, if any.	

SUMMARY FINANCIAL DATA

The following table summarize our financial data for the periods and as of the dates indicated. We have derived the statements of operations data for the years ended December 31, 2020 and 2019 from our audited financial statements and related notes included elsewhere in this prospectus. The statements of operations data for the three months ended March 31, 2021 and 2020 and the balance sheet data as of March 31, 2021 have been derived from our unaudited condensed financial statements and related notes included elsewhere in this prospectus and have been prepared in accordance with generally accepted accounting principles in the United States of America on the same basis as the annual audited financial statements and, in the opinion of management, the unaudited data reflects all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of the financial information in those statements. Our historical results are not necessarily indicative of results that may be expected in the future, and results for the period ended March 31, 2021 are not necessarily indicative of the results to be expected for the full year ending December 31, 2021. You should read the following summary financial data together with our financial statements and the related notes appearing elsewhere in this prospectus and the information in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Three Months Ended March 31,		Year Ended December 31,	
	2021	2020	2020	2019
	(unaudited)			
Statements of Operations Data:				
Total revenue	\$ 1,407,165	\$ 270,787	\$ 698,468	\$ 1,122,740
Operating expenses:				
Research and development	(2,431,860)	(283,114)	(893,802)	(2,552,711)
Selling, general and administrative	(1,600,576)	(527,688)	(2,623,158)	(4,268,177)
Loss from operations	(2,625,271)	(540,015)	(2,818,492)	(5,698,148)
Other expense:				
Interest expense, net	(11,797)	(7,425)	(29,402)	(24,835)
Net loss	<u>\$ (2,637,068)</u>	<u>\$ (547,440)</u>	<u>\$ (2,847,894)</u>	<u>\$ (5,722,983)</u>
Net loss per share of common stock, basic and diluted ⁽¹⁾	<u>\$ (0.26)</u>	<u>\$ (0.07)</u>	<u>\$ (0.35)</u>	<u>\$ (0.70)</u>
Weighted average number of common shares outstanding, basic and diluted ⁽¹⁾	<u>10,053,949</u>	<u>8,181,734</u>	<u>8,212,581</u>	<u>8,180,937</u>
Pro forma net loss per share, basic and diluted (unaudited) ⁽²⁾	<u>\$ (0.15)</u>	<u>\$ (0.03)</u>		
Pro forma weighted-average common shares outstanding, basic and diluted (unaudited) ⁽²⁾	<u>18,127,445</u>	<u>16,255,230</u>		

- (1) See Note 8 to our audited financial statements appearing at the end of this prospectus for details on the calculation of basic and diluted net loss per share attributable to common stockholders for the years ended December 31, 2020 and 2019 and Note 9 to our unaudited condensed financial statements for details on the calculation of basic and diluted net loss per share attributable to common stockholders for the three months ended March 31, 2021 and 2020.
- (2) The pro forma net loss per share and pro forma weighted-average common shares outstanding basic and diluted (unaudited) reflect the May 2021 issuance of 73,496 net shares of common stock and the sale and issuance of 8,000,000 shares of our common stock in this offering as if those issuances occurred at the beginning of the period presented.

	As of March 31, 2021	
	Actual	As Adjusted(1)
	(unaudited)	
Balance Sheet Data:		
Cash(2)	\$ 9,609,631	\$ 51,093,988
Working capital(3)	8,282,699	49,769,839
Total assets	11,874,035	53,355,609
Total liabilities	3,837,464	3,834,681
Accumulated deficit	(17,668,692)	(17,668,692)
Total stockholders' equity	8,036,571	49,520,928

- (1) The as adjusted balance sheet data in the table above reflects the sale and issuance by us of 8,000,000 shares of our common stock in this offering, based upon the assumed public offering price of \$5.65 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us and after the May 2021 issuance of 73,496 net shares of our common stock in connection with the exercise of stock options to purchase 90,414 shares of our common stock and receipt of \$34,357 upon such exercise.
- (2) As of March 31, 2021, the Company had active grants in the amount of \$1,546,730, of which \$772,420 remains available in accounts held by the U.S. Treasury as of June 7, 2021.
- (3) We define working capital as current assets less current liabilities. See our unaudited condensed financial statements for further details regarding our current assets and current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our financial statements and the related notes and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this prospectus, before deciding whether to invest in our common stock. Many of the following risks and uncertainties are, and will continue to be, exacerbated by the COVID-19 pandemic and any worsening of the global business and economic environment as a result. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Business, Financial Condition and Capital Requirements

We are a clinical stage drug development company with limited resources, a limited operating history and have no products approved for commercial sale, which may make it difficult to evaluate our current business and predict our future success and viability.

We are a clinical stage drug development company that commenced operations in September 2008. We have limited facilities to conduct fundamental research and we have performed our research and development activities by collaboration with contract service providers, and contract manufacturers and by designing and developing research programs in collaboration with university-based experts who work with us to evaluate mechanism(s) of disease for which we have designed and developed product candidates. Our direct research capabilities are very limited. As of the date of this prospectus, we have not maintained a principal laboratory or primary research facility for the development of our product candidates. In addition, we have no products approved for commercial sale and therefore all of our revenue has been obtained solely through grants and contracts from private foundations and from state and federal grants from institutions such as the National Institutes of Health and the Department of Defense.

Drug development is a highly uncertain undertaking and involves a substantial degree of risk. Prior to and at the time of this offering, we have not completed clinical trials for any of our product candidates, obtained marketing approval for any product candidates, manufactured a commercial scale product, or arranged for a third party to do so on our behalf, or conducted sales and marketing activities necessary for successful product commercialization. Given the highly uncertain nature of drug development, we may never complete clinical trials for any of our product candidates, obtain marketing approval for any product candidates, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization.

Our limited operating history as a company makes any assessment of our future success and viability subject to significant uncertainty. We will encounter risks and difficulties frequently experienced by early-stage pharmaceutical companies in rapidly evolving fields, and we have not yet demonstrated an ability to successfully overcome such risks and difficulties. If we do not address these risks and difficulties successfully, our business, operating results and financial condition will suffer.

The ongoing COVID-19 pandemic could materially affect our operations, as well as the business or operations of third parties with whom we conduct business. Our business could be adversely affected by the effects of current and other future health epidemics or pandemics in regions where we or third parties on which we rely have significant business operations.

Our business and its operations, including but not limited to clinical development, sales and marketing efforts, supply chain operations, research and development activities, and fundraising activities, could be

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adversely affected by health epidemics in regions where we have business operations, and such health epidemics could cause significant disruption in the operations of third parties upon whom we rely. For example, in December 2019, a novel strain of coronavirus, SARS-CoV-2, causing a disease referred to as COVID-19, was reported to have surfaced in Wuhan, China. Since then, COVID-19 has spread throughout the world. In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic, and the U.S. government-imposed restrictions on travel between the United States, Europe, and certain other countries. Further, the President of the United States declared the COVID-19 pandemic a national emergency. Since March 2020, numerous state and local jurisdictions, including the jurisdictions where our headquarters and laboratories are located, have imposed, and others in the future may impose, quarantines, shelter-in-place orders, executive, and similar government orders for their residents to control the spread of COVID-19. As of the date of this prospectus, the COVID-19 pandemic has had an impact upon our operations, although we believe that the impact is not material.

The effects of the executive orders, the shelter-in-place orders, and our work-from-home policies may negatively impact productivity, disrupt our business, and delay our preclinical and clinical programs and timelines, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on our ability to conduct our business in the ordinary course. These and similar, and perhaps more severe, disruptions in our operations could negatively impact our business, operating results and financial condition. We continue to monitor state and local quarantine, shelter-in-place, executive, and similar government orders and have begun reopening our offices to allow employees to return to the office, as needed, in accordance with our reopening plan, which is based on a phased approach that is appropriately tailored for each of our offices, with a focus on employee safety and optimal work environment.

Quarantines, shelter-in-place, executive, and similar government orders, or the perception that such orders, shutdowns or other restrictions on the conduct of business operations could occur, related to COVID-19 or other infectious diseases, could impact personnel at third-party manufacturing facilities in the United States and other countries, or the availability or cost of materials we use or require to conduct our business, including product development, which would disrupt our supply chain. In particular, some of our suppliers of certain materials used in our laboratory operations and research and development activities are located in areas that are subject to executive orders and shelter-in-place orders. While many of these materials may be obtained from more than one supplier, port closures and other restrictions resulting from the COVID-19 pandemic or future pandemics may disrupt our supply chain or limit our ability to obtain sufficient materials to operate our business. To date, we are aware of certain suppliers for our research and development activities who have experienced operational delays directly related to the COVID-19 pandemic.

In addition, we expect our preclinical and clinical trials may be affected by the COVID-19 pandemic. If COVID-19 is not contained, we may experience additional disruptions that could severely impact our business, preclinical studies and clinical trials, including:

- delays or difficulties in enrolling patients in our clinical trials;
- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- delays in clinical sites receiving the supplies and materials needed to conduct our clinical trials, including interruption in global shipping that may affect the transport of clinical trial materials;
- changes in local regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue the clinical trials altogether;
- 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 monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers and others, or interruption

of clinical trial subject visits and study procedures, the occurrence of which could affect the integrity of clinical trial data;

- risk that participants enrolled in our clinical trials will contract COVID-19 while the clinical trial is ongoing, which could result in participants dropping out of the trial, missing scheduled doses or follow-up visits or failing to follow protocol or otherwise impact the results of the clinical trial, including by increasing the number of observed adverse events;
- interruptions or delays in preclinical studies due to restricted or limited operations at our research and development laboratory facilities;
- delays in necessary interactions with local regulators, ethics committees, and other important agencies and contractors due to limitations in employee resources or forced furlough of government employees;
- limitations in employee resources that would otherwise be focused on the conduct of our clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people;
- refusal of the FDA to accept data from clinical trials in affected geographies;
- interruption or delays to our sourced discovery and clinical activities; and
- challenges as a result of the COVID-19 pandemic.

The spread of COVID-19, which has caused a broad impact globally, may materially affect us economically. While the potential economic impact brought by COVID-19, and the duration of such impact, may be difficult to assess or predict, the widespread pandemic has resulted in significant disruption of global financial markets, which could reduce our ability to access capital and negatively affect our future liquidity. In addition, a recession or market correction resulting from the spread of COVID-19 and related government orders and restrictions could materially affect our business and the value of our common stock. The COVID-19 pandemic continues to evolve rapidly. The ultimate impact of the COVID-19 pandemic or a similar health epidemic is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, our clinical trials, healthcare systems, or the global economy as a whole.

If we are unable to successfully raise additional capital, our future clinical trials and product development could be limited and our long-term viability may be threatened.

We have experienced negative operating cash flows since our inception and have funded our operations primarily through private, state and federal contracts and grants as well as the issuance of common stock in our initial public offering in December 2020. We will need to seek additional funds in the future through equity or debt financings, or strategic alliances with third parties, either alone or in combination with equity financings to complete our product development initiatives. These financings could result in substantial dilution to the holders of our common stock, or require contractual or other restrictions on our operations or on alternatives that may be available to us. If we raise additional funds by issuing debt securities, these debt securities could impose significant restrictions on our operations. Any such required financing may not be available in amounts or on terms acceptable to us, and the failure to procure such required financing could have a material and adverse effect on our business, financial condition and results of operations, or threaten our ability to continue as a going concern.

- Our present and future capital requirements will be significant and will depend on many factors, including:
- the progress and results of our development efforts for our product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims;

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- the effect of competing technological and market developments;
- market acceptance of our product candidates;
- the rate of progress in establishing coverage and reimbursement arrangements with domestic and international commercial third-party payors and government payors;
- the extent to which we acquire or in-license other products and technologies; and
- legal, accounting, insurance and other professional and business-related costs.
- We may not be able to acquire additional funds on acceptable terms, or at all. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some or all of our development programs.
- If we do not have, or are not able to obtain, sufficient funds, we may be required to delay development or commercialization of our product candidates. We also may have to reduce the resources devoted to our product candidates or cease operations. Any of these factors could harm our operating results.

Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements for the year ended December 31, 2020 included in this prospectus.

The report from our independent registered public accounting firm for the year ended December 31, 2020 includes an explanatory paragraph stating that our recurring losses from operations, working capital deficit and accumulated deficit raise substantial doubt about our ability to continue as a going concern. We will continue to seek to raise additional working capital through public equity, private equity or debt financings. If we fail to raise additional working capital, or do so on commercially unfavorable terms, it would materially and adversely affect our business, prospects, financial condition and results of operations, and we may be unable to continue as a going concern. In addition, our financial statements for the period ended March 31, 2021 include language stating that there is substantial doubt regarding the Company's ability to continue as a going concern for a period of one year after such financial statements were issued.

Future reports from our independent registered public accounting firm may also contain statements expressing substantial doubt about our ability to continue as a going concern. If we seek additional financing to fund our business activities in the future and there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding to us on commercially reasonable terms, if at all.

Drug development is a highly uncertain undertaking and involves a substantial degree of risk. We have never generated any revenue from product sales, we may never generate any revenue from product sales, and we may fail to generate further revenue from grants or contracts or to be profitable.

We have no products approved for commercial sale and have not generated any revenue from product sales. We anticipate generating additional revenue from private foundations and state and federal grants and contracts prior to generating revenue from product sales, but such grants and contracts are not guaranteed and will not make us profitable. Our ability to successfully commercialize our existing product candidates depends on our ability to successfully obtain regulatory approvals, among other factors. Thus, we may not generate meaningful revenue until after we have successfully begun and completed clinical development and received regulatory approval for the commercial sale of a product candidate. We may never begin clinical development or receive regulatory approval for the commercial sale of a product candidate and thus may never generate revenue from product sales.

Our ability to generate revenue and achieve profitability depends significantly on many factors, including:

- successfully completing research and preclinical and clinical development of our product candidates;

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- obtaining regulatory approvals and marketing authorizations for product candidates once we have successfully begun and completed clinical development and clinical trials;
- identifying, assessing, acquiring and/or developing new product candidates;
- successfully competing for grant revenue from private foundations and state and federal agencies;
- negotiating favorable terms in any collaboration, licensing or other arrangements into which we may enter;
- launching and successfully commercializing product candidates for which we obtain regulatory and marketing approval, either by collaborating with a partner or, if launched independently, by establishing a sales, marketing and distribution infrastructure;
- obtaining and maintaining an adequate price for our product candidates, both in the United States and in foreign countries where our products are commercialized;
- obtaining adequate reimbursement for our product candidates from payors;
- obtaining market acceptance of our product candidates as viable treatment options;
- addressing any competing technological and market developments;
- maintaining, protecting, expanding and enforcing our portfolio of intellectual property rights, including patents, trade secrets and know-how; and
- attracting, hiring and retaining qualified personnel.

Because of the numerous risks and uncertainties associated with drug development, we are unable to predict the timing or amount of our expenses, or when, if ever, we will be able to generate any meaningful revenue or achieve or maintain profitability. In addition, our expenses could increase beyond our current expectations if we are required by the FDA or foreign regulatory agencies to perform studies in addition to those that we currently anticipate, or if there are any delays in any of our or our future collaborators' preclinical or clinical trials or the development of any of our product candidates. Even if one or more of our product candidates is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate and ongoing compliance efforts.

Even if we are able to generate revenue from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations. Revenue from the sale of any product candidate for which regulatory approval is obtained will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to get reimbursement at any price and whether we own the commercial rights for that territory. If the number of addressable patients is not as significant as we anticipate, the indication approved by regulatory authorities is narrower than we expect, or the reasonably accepted population for treatment is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved. 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 decrease 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 continue our operations, and cause a decline in the value of our common stock, all or any of which may adversely affect our viability.

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

We have incurred net losses since our inception, including net losses of \$2,637,068 and \$547,440 for the three months ended March 31, 2021 and 2020, respectively, and net losses of \$2,847,894 and \$5,722,983 for the

years ended December 31, 2020 and 2019, respectively. As of March 31, 2021, we had an accumulated deficit of \$17,668,692.

We have invested significant financial resources in research and development activities, including for our product candidates and our RAMPTM drug discovery program and prodrug technologies. We do not expect to generate revenue from product sales for several years, if at all. The amount of our future net losses will depend, in part, on the level of our future expenditures and our ability to generate revenue. Moreover, our net losses may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance.

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

- continue our research and discovery activities;
- continue dosing patients in our Phase I clinical trial of kT-148009;
- continue the development of our RAMPTM drug discovery platform and prodrug technologies;
- advance our current and any future product candidates through preclinical and clinical development;
- initiate and conduct additional preclinical, clinical or other studies for our product candidates;
- work with our contract manufacturers to scale up the manufacturing processes for our product candidates or, in the future, establish and operate a manufacturing facility;
- change or add additional contract manufacturers or suppliers;
- seek regulatory approvals and marketing authorizations for our product candidates;
- establish sales, marketing and distribution infrastructure to commercialize any products for which we obtain approval;
- acquire or in-license product candidates, intellectual property and technologies;
- make milestone, royalty or other payments due under any license or collaboration agreements;
- obtain, maintain, protect and enforce our intellectual property portfolio, including intellectual property obtained through license agreements;
- attract, hire and retain qualified personnel;
- provide additional internal infrastructure to support our continued research and development operations and any planned commercialization efforts in the future;
- experience any delays or encounter other issues related to our operations;
- experience negative general market conditions or extraordinary external events, such as recessions or the COVID-19 pandemic;
- meet the requirements and demands of being a public company; and
- defend against any product liability claims or other lawsuits related to our products.

Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' deficit and working capital. In any particular quarter or quarters, our operating results could be below the expectations of securities analysts or investors, which could cause our stock price to decline.

If we fail to obtain additional financing, we may be unable to complete the development of and, if approved, commercialization of our product candidates.

Our operations have required substantial amounts of cash since inception. To date, we have financed our operations primarily through revenue generated by private, state and federal grants and contracts as well as the

issuance of common stock in our December 2020 initial public offering. Developing our product candidates is expensive, and we expect to continue to spend substantial amounts as we fund our early-stage research projects, continue preclinical development of our early-stage programs and, in particular, advance our lead program candidates through preclinical development and clinical trials, including our Phase I clinical trial of IKT-148009. The successful development of our product candidates, obtaining regulatory approvals and launching and commercializing any product candidate will require substantial additional funding beyond the net proceeds of the December 2020 offering.

The Company had active grants in the amount of \$1,546,730, of which \$722,420 remained available in accounts held by the U.S. Treasury as of March 31, 2021. We estimate that our net proceeds from this offering will be approximately \$41.5 million, at the assumed public offering price of \$5.65 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. Our estimate as to how long we expect our existing cash to be adequate to fund our operations is based on assumptions that may prove inaccurate, and we could use our available capital resources sooner than we currently expect. In addition, changing circumstances may cause us to increase our spending significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control or if we choose to expand more rapidly than we presently anticipate.

We will require additional capital for the further development and, if approved, commercialization of our product candidates. Additional capital may not be available when we need it, on terms acceptable to us, or at all. We have no committed source of additional capital. If adequate capital is not available to us on a timely basis, we may be required to significantly delay, scale back or discontinue our research and development programs or the commercialization of any product candidates, if approved, or be unable to continue or expand our operations or otherwise capitalize on our business opportunities, as desired, which could materially affect our business, prospects, financial condition and results of operations and cause the price of our common stock to decline. Market volatility resulting from the COVID-19 pandemic or other factors could also adversely impact our ability to access capital as and when needed.

Furthermore, debt financing, if available, may require payment of interest and potentially involve restrictive covenants that could impose limitations on our flexibility to operate. Any difficulty or failure to successfully obtain additional funding may jeopardize our ability to continue the business and our operations.

Due to the significant resources required for the development of our programs, and depending on our ability to access capital, we must prioritize development of certain product candidates. We may expend our limited resources on programs that do not yield a successful product candidate and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

We have a portfolio that applies our RAMPTM drug discovery platform and prodrug technology across three therapeutic areas: neurodegeneration in the brain and GI complications of PD patients, oncology and bacterial and viral disease in the brain. We seek to maintain a process of prioritization and resource allocation to maintain an optimal balance between aggressively advancing lead programs and ensuring replenishment of our portfolio.

Due to the significant resources required for the development of our programs, we must focus our programs on specific diseases and disease pathways and decide which product candidates to pursue and advance and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular product candidates or therapeutic areas may not lead to the development of any viable commercial product and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain programs may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. We may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities with other product candidates or other diseases and disease pathways that may later prove to have greater commercial potential than those we choose to pursue, or relinquish

valuable rights to such product candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain sole development and commercialization rights. If we make incorrect determinations regarding the viability or market potential of any or all of our programs or product candidates or misread trends in the pharmaceutical industry, in particular, for neurodegenerative diseases, our business, prospects, financial condition and results of operations could be materially adversely affected.

Our business is highly dependent on the success of our initial product candidates targeting neurodegenerative diseases. All of our product candidates will require significant nonclinical and clinical development before we can seek regulatory approval for and launch a product commercially.

Our business and future success depends on our ability to obtain regulatory approval of, and then successfully launch and commercialize our initial product candidates targeting neurodegenerative diseases, including IkT-148009 and IkT-001Pro. Our product candidates, including IkT-148009, may experience preliminary complications surrounding trial execution, such as complexities surrounding the submission and regulatory acceptance of INDs, trial protocols and design, patient recruitment and enrollment, quality and supply of clinical doses and safety issues.

All of our product candidates are in the early stages of preclinical and/or clinical development and will require additional nonclinical and clinical development, regulatory review and approval in multiple jurisdictions, substantial investment, access to sufficient commercial manufacturing capacity and significant marketing efforts, all of which will require additional capital, before we can generate any revenue from product sales. In addition, if IkT-148009 encounters safety, efficacy, supply or manufacturing problems, developmental delays, regulatory or commercialization issues or other problems, our development plans and business would be significantly harmed.

Risks Related to the Discovery, Development and Commercialization of Our Product Candidates

We currently collaborate with various research institutions to perform the research and development activities needed to develop our products, and if we ever choose to or need to find alternative research institutions, we may not be able to do so at all or, if we are able to do so, it may be costly and may cause significant delays in the development and commercialization of our products.

We do not currently own, lease or operate a principal laboratory, research and development or manufacturing facility of our own. Currently, we collaborate with various research institutions to perform research and development for our products, including: Johns Hopkins University and Louisiana State University at Shreveport. Establishing our own facilities would result in significant additional expense and may result in potential delays in testing and production. Building and operating our own production facilities would require substantial additional funds and other resources, of which there can be no assurance that we will be able to obtain. In addition, there can be no assurances that we would be able to enter into any arrangement with third parties to manufacture our product, if any, on acceptable terms or at all. The commercial success of products outside the United States will also be dependent on the successful completion of arrangements with future partners, licensees or distributors in each territory. There can be no assurance that we will be successful in continuing to contract with research institutions to perform research and development for our products, that we would be able to establish our own facilities should we choose to or find it necessary to do so, that we would be successful in establishing additional collaborative arrangements or that, if established, such future partners will be successful in commercializing our products.

Research, development, and commercialization of pharmaceutical products are inherently risky. We are heavily dependent on the successful use of our RAMPTM drug discovery program and the product candidates that emerge from it and which are undergoing preclinical development. We cannot give any assurance that any of our product candidates will receive regulatory approval, which is necessary before they can be commercialized.

We are at an early stage of development of the product candidates currently in our programs and are further developing our RAMPTM drug discovery program and prodrug technologies to provide future additional product candidates. To date, we have invested substantially all of our efforts and financial resources to identify, develop intellectual property for, and advance our programs, including conducting preclinical studies for our lead programs, commencing our Phase I clinical trials for IKT-148009 and providing general and administrative support for these operations. Our future success is dependent on our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize our product candidates, and we may fail to do so for many reasons, including the following:

- our product candidates may not successfully complete preclinical studies or begin or complete clinical trials;
- our product candidates may fail to be delivered across the blood brain barrier, or BBB, and therefore may not be clinically viable for CNS diseases such as PD;
- a product candidate may, on further study, be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- our competitors may develop therapeutics that render our product candidates obsolete or less attractive;
- our competitors may develop alternative technologies to deliver therapeutics across the BBB that outperform our product candidates;
- the product candidates that we develop may not be sufficiently covered by intellectual property for which we hold exclusive rights;
- the product candidates that we develop may be covered by third parties' patents or other intellectual property or exclusive rights;
- the market for a product candidate may change so that the continued development of that product candidate is no longer reasonable or commercially attractive;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all;
- if a product candidate obtains regulatory approval, we may be unable to establish sales and marketing capabilities, or successfully market such approved product candidate, to gain market acceptance; and
- a product candidate may not be accepted as safe and effective by patients, the medical community or governmental third party payors.

We may not be successful in our efforts to further develop current or future product candidates. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. Each of our product candidates is in the early stages of development, has not undergone clinical trials except in the case of our Phase I clinical trial for IKT-148009 for which we have recently commenced dosing patients, and will require significant clinical development, management of preclinical, clinical, and manufacturing activities, regulatory approval, adequate manufacturing supply, a commercial organization, and significant marketing efforts before we generate any revenue from product sales, if at all.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, which could have a material adverse effect on our business and could potentially cause us to cease operations.

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

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

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

We have no history of completing clinical trials for novel drug substances or commercializing pharmaceutical products, which may make it difficult to evaluate the prospects for our future viability.

Our operations to date have been limited to research, financing and staffing our company, developing our technology and developing our lead product candidate, IKT-148009, and other product candidates and commencing our Phase I clinical trial for IKT-148009. Our company has completed observational trials measuring biological parameters for specific indications in human patients from human fluids, but we have never completed a clinical development program for a new interventional drug, and we have not commercialized product candidates. Our product development strategy has included attempts to create molecules through RAMPTM that have predictable human safety margins for the target patient population, but we have never proved that our product candidates have this safety margin in clinical studies. Except for the commencement of our Phase I clinical trial for IKT-148009 for PD in February 2021, none of our product candidates have advanced into clinical development, late-stage development or a pivotal clinical trial and it may be years before any such trial is initiated, if at all. We cannot be certain that planned clinical trials will begin or be completed on time, if at all, that our planned development programs would be acceptable to the FDA or other regulatory authorities, or that, if approval is obtained, such product candidates can be successfully commercialized. Clinical trials and commercializing our product candidates will require significant additional financial and management resources, and reliance on third party clinical investigators, contract research organizations or CROs, consultants or collaborators. Relying on third party clinical investigators, CROs or collaborators may result in delays that are outside of our control. If our clinical development program, clinical trials or commercialization of our product candidates were to fail, it would have a material adverse effect on our business, prospects, financial condition and results of operations.

Our clinical trials may reveal significant adverse events, toxicities or other side effects not seen in our preclinical studies and may result in a safety profile that could inhibit regulatory approval or market acceptance of any of our product candidates.

In order to obtain marketing approval for any of our product candidates, we must demonstrate the safety and efficacy of the product candidate for the relevant clinical indication or indications through clinical trials as well as additional supporting data. If our product candidates are associated with undesirable side effects in clinical trials or have characteristics that are unexpected, we may need to interrupt, delay or abandon their development

or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective.

We cannot guarantee that any positive results in preclinical studies will successfully translate to human patients. Additionally, we cannot guarantee that additional preclinical studies will show positive results. It is not uncommon to observe results in human clinical trials that are unexpected based on preclinical testing, and many product candidates fail in clinical trials despite promising preclinical results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for their products. Subjects in our current Phase 1 study and planned clinical trials may suffer significant adverse events or other side effects not observed in our preclinical studies. The observed potency and kinetics of our product candidates in preclinical studies and clinical studies may not be observed in human clinical trials. We have tested the dosing frequency and route of administration of our product candidates in preclinical studies, which has and will inform our dosing strategy for future clinical trials. However, such dose and route of administration may not result in sufficient exposure or pharmacological effect in humans, and may lead to unforeseen toxicity not previously observed in preclinical testing. Further, if our planned clinical trials of our product candidates fail to demonstrate efficacy to the satisfaction of regulatory authorities or do not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

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

Further, if any of our product candidates obtains marketing approval, toxicities associated with our product candidates may also develop after such approval and lead to a requirement to conduct additional clinical safety trials, additional warnings being added to the labeling, significant restrictions on the use of the product or the withdrawal of the product from the market. We cannot predict whether our product candidates will cause toxicities in humans that would preclude or lead to the revocation of regulatory approval.

We may not be successful in our efforts to continue to create a pipeline of product candidates or to develop commercially successful products. If we fail to successfully identify and develop additional product candidates, our commercial opportunity may be limited.

One of our strategies is to identify and pursue clinical development of additional product candidates.

We currently have eight programs, all of which are in the research, discovery, preclinical or clinical stages of development. Identifying, developing, obtaining regulatory approval and commercializing additional product candidates will require substantial additional funding beyond the net proceeds of this offering and is prone to the risks of failure inherent in drug development. We may not be able to successfully identify or acquire additional product candidates, advance any of these additional product candidates through the development process, successfully commercialize any such additional product candidates, if approved. If we are unable to successfully identify, acquire, develop and commercialize additional product candidates, our commercial opportunity may be limited.

If any of our product candidates successfully completes its planned clinical trials, we plan to seek regulatory approval to market such product candidates in the United States, the European Union, or EU, and in additional foreign countries where we believe there is a viable commercial opportunity. We have never commenced, compiled or submitted an application seeking regulatory approval to market any product candidate. We may never receive regulatory approval to market any product candidates even if such product candidates successfully complete clinical trials, which would adversely affect our viability. To obtain regulatory approval in countries outside the United States, we must comply with numerous and varying regulatory requirements of such other countries regarding safety, efficacy, chemistry, manufacturing and controls, clinical trials, commercial sales, pricing, and distribution of our product candidates. We may also rely on collaborators or partners to conduct the required activities to support an application for regulatory approval, and to seek approval, for one or more of our product candidates. We cannot be sure that collaborators or partners will conduct these activities or do so within the timeframe we desire. Even if we (or our collaborators or partners) are successful in obtaining approval in one jurisdiction, we cannot ensure that we will obtain approval in any other jurisdictions. If we are unable to obtain approval for our product candidates in multiple jurisdictions, our revenue and results of operations could be negatively affected.

Even if we receive regulatory approval to market any of our product candidates, whether for the treatment of neurodegenerative diseases or other diseases, we cannot assure you that any such product candidate will be successfully commercialized, widely accepted in the marketplace or more effective than other commercially available alternatives.

Investment in pharmaceutical product development involves significant risk that any product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval, and become commercially viable. We cannot provide any assurance that we will be able to successfully advance any of our product candidates through the development process or, if approved, successfully commercialize any of our product candidates.

We have concentrated much of our research and development efforts on the treatment of neurodegenerative diseases, a field that has seen limited success in drug development.

We have focused much of our research and development efforts on addressing neurodegenerative diseases. Collectively, efforts by pharmaceutical companies in the field of neurodegenerative diseases have seen limited success in drug development. There are currently no marketed disease-modifying therapeutic options available for patients with PD and other neurodegenerative diseases. Disease-modifying therapies are therapies that would slow, stop or reverse neurodegenerative disease. While we believe our approach to therapy is disease-modifying, no markers to quantify disease progression have been identified. Our future success may be dependent on demonstrating disease-modification for neurodegenerative diseases using our product candidates. Developing and, if approved, commercializing our product candidates for treatment of neurodegenerative diseases subjects us to a number of challenges, including engineering product candidates to cross the BBB to enable optimal concentration of the therapeutic in the brain and obtaining regulatory approval from the FDA and other regulatory authorities who have only a limited set of precedents to rely on.

Our approach to the treatment of neurodegenerative diseases aims to identify and select targets with a biochemical link to neurodegenerative diseases, identify and develop biomarkers for the intended targets, which are biological molecules found in blood, other bodily fluids or tissues that are signs of a normal or abnormal process or of a condition or disease, to select the right patient population and demonstrate target engagement, pathway engagement and impact on disease progression of our molecules, identify and develop molecules that engage the intended target, and engineer our molecules to cross the BBB and act directly in the brain. This strategy may not prove to be successful. We cannot be sure that our approach will yield satisfactory therapeutic products that are safe and effective, scalable, profitable or able to obtain regulatory approval.

Moreover, public perception of drug safety issues, including adoption of new therapeutics or novel approaches to treatment, may adversely influence the willingness of subjects to participate in clinical trials, or if approved, of physicians to subscribe to novel treatments.

We may encounter substantial delays in our current Phase 1 clinical trial and planned clinical trials, or may not be able to conduct or complete our clinical trials on the timelines we expect, if at all.

Our current Phase 1 clinical trial and planned clinical trials are expensive, time consuming, and subject to uncertainty. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. We cannot be sure that submission of an IND, or, in the case of the EMA, a clinical trial application, or CTA, will result in the FDA or EMA allowing clinical trials to begin in a timely manner, if at all. Moreover, even if these trials begin, including our Phase I clinical trial of IKT-148009 for which our first dosing of patients commenced in February 2021, issues may arise that could suspend or terminate such clinical trials. A failure of one or more clinical trials can occur at any stage of testing, and our future clinical trials may not be successful. Events that may prevent successful or timely initiation or completion of clinical trials include:

- inability to generate sufficient preclinical, toxicology, or other *in vivo* or *in vitro* data to support the initiation or continuation of clinical trials;
- delays in confirming target engagement, patient selection or other relevant biomarkers to be utilized in preclinical and clinical product candidate development;
- delays in reaching a consensus with regulatory agencies on study design;
- delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- delays in identifying, recruiting and training suitable clinical investigators;
- delays in obtaining required IRB approval at each clinical trial site;
- imposition of a temporary or permanent clinical hold by regulatory agencies for a number of reasons, including, but not limited to, after review of an IND or amendment, CTA or amendment, or equivalent application or amendment; as a result of a new safety finding that presents unreasonable risk to clinical trial participants; a negative finding from an inspection of our clinical trial operations or study sites; developments in trials conducted by competitors that raise FDA or EMA concerns about risk to patients broadly; or if the FDA or EMA finds that the investigational protocol or plan is clearly deficient to meet its stated objectives;
- delays or difficulties resulting from the COVID-19 pandemic;
- delays in identifying, recruiting and enrolling suitable patients to participate in our clinical trials, and delays caused by patients withdrawing from clinical trials or failing to return for post-treatment follow-up;
- difficulty collaborating with patient groups and investigators;
- failure by our CROs, other third parties, or us to adhere to clinical trial requirements;
- failure to perform in accordance with the FDA's or any other regulatory authority's current good clinical practices, or cGCPs, requirements, or applicable EMA or other regulatory guidelines in other countries;
- occurrence of adverse events associated with a product candidate that are viewed to outweigh its potential benefits;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;

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- changes in the standard of care on which a clinical development plan was based, which may require new or additional trials;
- the cost of clinical trials of our product candidates being greater than we anticipate;
- clinical trials of our product candidates producing negative or inconclusive results, which may result in our deciding, or regulators requiring us, to conduct additional clinical trials or abandon product development programs; and
- delays in manufacturing, testing, releasing, validating, or importing/exporting sufficient stable quantities of our product candidates for use in clinical trials or the inability to do any of the foregoing.

Any inability to successfully initiate or complete current or future clinical trials could result in additional costs to us or impair our ability to generate revenue. In addition, if we make manufacturing or formulation changes to our product candidates, we may be required to or we may elect to conduct additional studies to bridge our modified product candidates to earlier versions. Clinical trial delays could also shorten any periods during which our products have patent protection and may allow our competitors to bring products to market before we do, which could impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the data safety monitoring board for such trial or by the FDA, EMA or any other regulatory authority, or if the IRBs of the institutions in which such trials are being conducted suspend or terminate the participation of their clinical investigators and sites subject to their review. Such authorities may suspend or terminate a clinical trial due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA, EMA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

We may encounter difficulties enrolling patients in our current Phase 1 clinical trial and planned clinical trials, and our clinical development activities could thereby be delayed or otherwise adversely affected.

The timely completion of our current Phase 1 clinical trial and planned clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in such trials until their conclusion. We may experience difficulties in patient enrollment in our planned clinical trials for a variety of reasons, including:

- the size and nature of the patient population;
- the patient eligibility criteria defined in the protocol, and/or certain criteria related to stage of disease progression, which may limit the patient populations eligible for our clinical trials;
- the size of the study population required for analysis of a trial's primary endpoints;
- the proximity of patients to a trial site;
- the COVID-19 pandemic;
- the design of a trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- competing clinical trials for similar therapies or targeting patient populations meeting our patient eligibility criteria;
- clinicians' and patients' perceptions as to the potential advantages and side effects of the product candidate being studied in relation to other available therapies and product candidates;

- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will not complete such trials, for any reason.

Our current Phase 1 clinical trial and planned clinical trials may fail to demonstrate substantial evidence of the safety and efficacy of our product candidates, which would prevent, delay or limit the scope of regulatory approval and commercialization.

Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical studies and clinical trials that our product candidates are both safe and effective for use in each target indication. Each product candidate must demonstrate an adequate risk versus benefit profile in its intended patient population and for its intended use.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies of our product candidates may not be predictive of the results of early-stage or later-stage clinical trials, and results of early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. The results of our planned clinical trials in one set of patients or disease indications may not be predictive of those obtained in another. In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial participants. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy profile despite having progressed through preclinical studies and initial clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety issues, notwithstanding promising results in earlier trials. This is particularly true in neurodegenerative diseases, where failure rates historically have been higher than in many other disease areas. Most product candidates that begin clinical trials are never approved by regulatory authorities for commercialization.

We cannot be certain that our current or planned clinical trials will be successful. Additionally, any safety concerns observed in any one of our current and planned clinical trials in our targeted indications could limit the prospects for regulatory approval of our product candidates in those and other indications, which could have a material adverse effect on our business, prospects, financial condition and results of operations.

Even if our planned clinical trials were to be successfully completed, we cannot guarantee that the FDA or foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. To the extent that the results of the trials are not satisfactory to the FDA or foreign regulatory authorities for support of a marketing application, we may be required to expend significant resources, which may not be available to us, to conduct additional trials in support of potential approval of our product candidates. Even if regulatory approval is secured for any of our product candidates, the terms of such approval may limit the scope and use of our product candidate, which may also limit its commercial potential.

Clinical development is a lengthy and expensive process with an uncertain outcome, and failure can occur at any stage of clinical development. If we are unable to design, conduct and complete our current and planned clinical trials successfully, our product candidates will not be able to receive regulatory approval.

In order to obtain FDA approval for any of our product candidates, we must submit to the FDA an NDA with substantial evidence that demonstrates that the product candidate is both safe and effective in humans for its intended use. This demonstration will require significant research, preclinical studies and clinical trials.

Clinical trials are time-consuming, expensive and difficult to design and implement, in part because they are subject to rigorous requirements and the outcomes are inherently uncertain. Clinical testing may take many years

to complete, and failure can occur at any time during the clinical trial process, even with active ingredients that have previously been approved by the FDA as safe and effective. If we receive authorization to conduct our planned clinical trials in addition to our already commenced Phase 1 clinical trial for IKT-148009, we could encounter problems that could halt our planned clinical trials or require us to repeat such clinical trials. If patients participating in our current and planned clinical trials suffer drug-related adverse reactions during the course of such clinical trials, or if we or the FDA believe that patients are being exposed to unacceptable health risks, such clinical trials may have to be suspended or terminated. Suspension, termination or the need to repeat a clinical trial can occur at any stage.

The clinical trial success of each of our product candidates depends on reaching statistically significant changes in patients' symptoms based on clinician-rated scales. There is a lack of consensus regarding standardized processes for assessing clinical outcomes based on clinician-rated scales. Accordingly, the scores from our clinical trials may not be reliable, useful or acceptable to the FDA or other regulatory agencies.

Changes in standards related to clinical trial design could have a material adverse effect on our ability to design and conduct clinical trials as planned. For example, we expect to conduct clinical trials comparing our product candidates to both placebo and other approved drugs, but regulatory authorities may not allow us to compare our product candidates to a placebo in a particular clinical indication where approved products are available. In that case, both the cost and the amount of time required to conduct such a planned clinical trial could increase. The FDA may disagree with our trial design and our interpretation of data from our planned clinical trials, or may change the requirements for approval even after it has reviewed and commented on the design for our planned clinical trials. The FDA may also approve a product candidate for fewer or more limited indications than we request, or may grant approval contingent on the performance of costly post-approval clinical trials. In addition, the FDA may not approve the labeling claims or removal of certain warnings that we believe are necessary or desirable for the successful commercialization of our product candidates. Approval may be contingent on a Risk Evaluation and Mitigation Strategy, or REMS, which could have a material adverse effect on the labeling, distribution or promotion of a drug product.

Any of these delays or additional requirements could cause our product candidates to not be approved, or if approved, significantly impact the timing and commercialization of our product candidates and significantly increase our overall costs of drug development.

We face significant competition in an environment of rapid technological and scientific change, and there is a possibility that our competitors may achieve regulatory approval before us or develop therapies that are safer, more advanced or more effective than ours, which may negatively impact our ability to successfully market or commercialize any product candidates we may develop and ultimately harm our financial condition.

The development and commercialization of new drug products is highly competitive. Moreover, the neurodegenerative field is characterized by strong and increasing competition, and a strong emphasis on intellectual property. Our competitors may be able to develop other compounds, drugs, cellular or gene therapies that are able to achieve similar or better results. We may face competition with respect to any product candidates that we seek to develop or commercialize in the future from major pharmaceutical companies and specialty pharmaceutical companies worldwide. Potential competitors also include academic institutions, government agencies, and other public and private research organizations that conduct research, seek patent protection, and establish collaborative arrangements for research, development, manufacturing, and commercialization.

There are a number of pharmaceutical and biotech companies that are currently pursuing the development of products for the treatment of the neurodegenerative disease indications for which we have research programs or have commenced clinical development, including PD. Companies developing therapeutics in the neurodegenerative disease area include large companies with significant financial resources, such as Biogen, Inc., Neuropore Therapies, Inc., Bristol Meyers Squibb, Roche Holdings AG, Prothena Corporation plc, Sanofi S.A., Takeda Pharmaceutical Co. Ltd., UCB, S.A., Denali Therapeutics, Prevail Therapeutics, Sun SPARC,

FirstBio and AbbVie. In addition to competition from other companies targeting neurodegenerative indications, any products we may develop may also face competition from other types of therapies using distinct treatment modalities.

Many of our current or potential competitors, either alone or with their strategic partners, have significantly greater financial resources and expertise in research and clinical development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Our commercial opportunities 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. Furthermore, currently approved products could be discovered to have application for treatment of the same disease indications as our product candidates, which could give such products significant regulatory and market timing advantages over any of our product candidates. Our competitors also may obtain FDA, EMA or other regulatory approval for their products more rapidly than we may obtain approval for ours and may obtain orphan product exclusivity from the FDA for indications our product candidates are targeting, which could result in our competitors establishing a strong market position before we are able to enter the market. Additionally, products or technologies developed by our competitors may render our potential product candidates uneconomical or obsolete, and we may not be successful in marketing any product candidates we may develop against competitors.

In addition, we could face litigation or other proceedings with respect to the scope, ownership, validity and/or enforceability of our patents relating to our competitors' products and our competitors may allege that our products infringe, misappropriate or otherwise violate their intellectual property. See "— Risks Related to Our Intellectual Property." The availability of our competitors' products could limit the demand, and the price we are able to charge, for any products that we may develop and commercialize.

The manufacture of our product candidates is complex and difficulties may be encountered in production. If such difficulties are encountered or failure to meet regulatory standards occurs, our ability to provide supply of our product candidates for clinical trials or our products for patients, if approved, could be delayed or stopped, or we may be unable to maintain a commercially viable cost structure.

The processes involved in manufacturing our drug product candidates are complex, expensive, highly-regulated and subject to multiple risks. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. Further, as product candidates are developed through preclinical studies to potential future clinical trials towards approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of our current and planned clinical trials or other future clinical trials. We expect to rely on third-party manufacturers for the manufacturing of our products.

In order to conduct our current Phase 1 clinical trial and planned or future clinical trials of our product candidates, or supply commercial products, if approved, we will need to have them manufactured in small and large quantities. Our manufacturing partners may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If our manufacturing partners are unable to successfully scale up the manufacture of our product candidates in sufficient quality and quantity, the development, testing and clinical trials of that

product candidate may be delayed or become infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business. The same risks would apply to our internal manufacturing facilities, should we in the future decide to build internal manufacturing capacity. In addition, building internal manufacturing capacity would carry significant risks in terms of being able to plan, design and execute on a complex project to build manufacturing facilities in a timely and cost-efficient manner.

In addition, the manufacturing process for any products that we may develop is subject to the FDA, EMA and foreign regulatory authority approval processes and continuous oversight, and we will need to contract with manufacturers who can meet all applicable FDA, EMA and foreign regulatory authority requirements, including complying with current good manufacturing processes, or on an ongoing basis. If we or our third-party manufacturers are unable to reliably produce products to specifications acceptable to the FDA, EMA or other regulatory authorities, we may not obtain or maintain the approvals we need to commercialize such products. Even if we obtain regulatory approval for any of our product candidates, there is no assurance that either we or our CMOs will be able to manufacture the approved product to specifications acceptable to the FDA, EMA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product, or to meet potential future demand. Any of these challenges could delay completion of clinical trials, require bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidate, impair commercialization efforts, increase our cost of goods, and have an adverse effect on our business, prospects, financial condition, results of operations and growth prospects.

If, in the future, we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market any product candidates we may develop, we may not be successful in commercializing those product candidates if and when they are approved.

We do not have a sales or marketing infrastructure, nor have we sold, marketed, or distributed pharmaceutical products. To achieve commercial success for any approved product for which we retain sales and marketing responsibilities, we must either develop a sales and marketing organization or outsource these functions to third parties. In the future, we may choose to build a sales, marketing, and commercial support infrastructure to sell, or participate in sales activities with our collaborators for, some of our product candidates if and when they are approved.

There are risks involved with both establishing our own commercial capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force or reimbursement specialists 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 and other commercialization capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our commercialization personnel.

Factors that may inhibit our efforts to commercialize any approved product on our own include:

- our inability to recruit and retain adequate numbers of effective sales, marketing, reimbursement, customer service, medical affairs, and other support personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future approved 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;

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- 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 commercialization organization.

If we enter into arrangements with third parties to perform sales, marketing, commercial support, and distribution services, our product revenue or the profitability of product revenue may be lower than if we were to market and sell any products we may develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to commercialize our product candidates or may be unable to do so on terms that are favorable to us. We may 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 commercialization capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates if approved.

Even if any product candidates we develop receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors, and others in the medical community necessary for commercial success.

The commercial success of any of our product candidates will depend upon its degree of market acceptance by physicians, patients, third party payors, and others in the medical community. Even if any product candidates we may develop receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, healthcare payors, and others in the medical community. The degree of market acceptance of any product candidates we may develop, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety of such product candidates as demonstrated in pivotal clinical trials and published in peer-reviewed journals;
- the potential and perceived advantages compared to alternative treatments;
- the ability to offer our products for sale at competitive prices;
- the ability to offer appropriate patient access programs, such as co-pay assistance;
- the extent to which physicians recommend our products to their patients;
- convenience and ease of dosing and administration compared to alternative treatments;
- the clinical indications for which the product candidate is approved by the FDA, EMA or other comparable foreign regulatory agencies;
- product labeling or product insert requirements of the FDA, EMA or other comparable foreign regulatory authorities, including any limitations, contraindications or warnings contained in a product's approved labeling;
- restrictions on how the product is distributed;
- the timing of market introduction of competitive products;
- publicity concerning our products or competing products and treatments;
- the effectiveness of marketing and distribution efforts by us and other licensees and distributors;
- sufficient governmental third party coverage or reimbursement; and
- the prevalence and severity of any side effects.

If any product candidates we develop do not achieve an adequate level of acceptance by physicians, healthcare payors, patients and the medical community, we will not be able to generate significant revenue, and we may not become or remain profitable. The failure of any of our product candidates to find market acceptance would harm our business prospects.

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

The regulations that govern marketing approvals, pricing, and reimbursement for new drugs vary widely from country to country. In the United States, continual legislative changes 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. 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 revenue 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 any product candidates we may develop obtain marketing approval.

Our ability to successfully commercialize any products that we may develop also will depend in part on the extent to which reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers, and other organizations. 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. Government authorities currently impose mandatory discounts for certain patient groups, such as Medicare, Medicaid and Veterans Affairs, or VA, hospitals, and may seek to increase such discounts at any time. Future regulation may negatively impact the price of our products, if they are approved for commercial sale. 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. We cannot be sure that reimbursement will be available for any product candidate that we commercialize and, if reimbursement is available, of the level of reimbursement. Reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. In order to get reimbursement, physicians may need to show that patients have superior treatment outcomes with our products compared to standard of care drugs, including lower-priced generic versions of standard of care drugs. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval. In the United States, no uniform policy of coverage and reimbursement for products exists among third party payors and coverage and reimbursement levels 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 may require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the medicine is approved by the FDA, EMA or other comparable foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale, and distribution. 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 profitable payment rates from both government-funded and private payors for any approved products we may develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize product candidates, and our overall financial condition.

If any of our product candidates obtain regulatory approval, additional competitors could enter the market with generic versions of such drugs, which may result in a material decline in sales of affected products.

Under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, a pharmaceutical manufacturer may file an abbreviated new drug application, or ANDA, seeking approval of a generic copy of an approved, small molecule innovator product. Under the Hatch-Waxman Act, a manufacturer may also submit an NDA under section 505(b)(2) that references the FDA's prior approval of the small molecule innovator product. A 505(b)(2) NDA product may be for a new or improved version of the original innovator product. The Hatch-Waxman Act also provides for certain periods of regulatory exclusivity, which preclude FDA approval (or in some circumstances, FDA filing and reviewing) of an ANDA or 505(b)(2) NDA. These include, subject to certain exceptions, the period during which an FDA-approved drug is subject to orphan drug exclusivity. In addition to the benefits of regulatory exclusivity, an innovator NDA holder may have patents claiming the active ingredient, product formulation or an approved use of the drug, which would be listed with the product in the FDA publication, "Approved Drug Products with Therapeutic Equivalence Evaluations," known as the "Orange Book." If there are patents listed in the Orange Book, a generic or 505(b)(2) applicant that seeks to market its product before expiration of the patents must include in the ANDA a "Paragraph IV certification," challenging the validity or enforceability of, or claiming non-infringement of, the listed patent or patents. Notice of the certification must be given to the innovator, too, and if within 45 days of receiving notice the innovator sues to protect its patents, approval of the ANDA is stayed for 30 months, or as lengthened or shortened by the court.

Accordingly, if any of our product candidates are approved, competitors could file ANDAs for generic versions of our drug products or 505(b)(2) NDAs that reference our drug products, respectively. If there are patents listed for our drug products in the Orange Book, those ANDAs and 505(b)(2) NDAs would be required to include a certification as to each listed patent indicating whether the ANDA applicant does or does not intend to challenge the patent. We cannot predict which, if any, patents in our current portfolio or patents we may obtain in the future will be eligible for listing in the Orange Book, how any generic competitor would address such patents, whether we would sue on any such patents, or the outcome of any such suit.

We may not be successful in securing or maintaining proprietary patent protection for products and technologies we develop or license. Moreover, if any of our owned or in-licensed patents that are listed in the Orange Book are successfully challenged by way of a Paragraph IV certification and subsequent litigation, the affected product could immediately face generic competition and its sales would likely decline rapidly and materially. Should sales decline, we may have to write off a portion or all of the intangible assets associated with the affected product and our results of operations and cash flows could be materially and adversely affected. See "— Risks Related to Our Intellectual Property."

Conducting any clinical trials of our product candidates and any future commercial sales of a product candidate may expose us to expensive product liability claims, and we may not be able to maintain product liability insurance on reasonable terms or at all and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability as a result of the preclinical and clinical testing of our product candidates and will face an even greater risk when and if we commercialize any products. For example, we may

be sued if our product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during preclinical or clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit testing and commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased or interrupted demand for our products;
- injury to our reputation;
- withdrawal of clinical trial participants and inability to continue our clinical trials;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- the inability to commercialize any product candidate; and
- a decline in our share price.

Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop, alone or with collaborators. Our insurance policies may have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Risks Related to Regulatory Approval and Other Legal Compliance Matters

The regulatory approval processes of the FDA, EMA and comparable foreign regulatory authorities are lengthy, time consuming, and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates, we will be unable to generate product revenue and our business will be substantially harmed.

The time required to obtain approval by the FDA, EMA and comparable foreign regulatory authorities is unpredictable, typically takes many years following the commencement of clinical trials, and depends upon numerous factors, including the type, complexity and novelty of the product candidates involved. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions, which may cause delays in the approval or the decision not to approve an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application, may disagree with our regulatory strategy or proposed pathway for approval or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. We have not submitted for, or obtained regulatory approval for any product candidate, and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval.

Applications for our product candidates could fail to receive regulatory approval for many reasons, including, but not limited to the following:

- the FDA, EMA or comparable foreign regulatory authorities may disagree with the design, implementation or results of our preclinical or clinical trials;
- the FDA, EMA or comparable foreign regulatory authorities may determine that our product candidates are not safe and effective, only moderately effective or have undesirable or unintended side effects, toxicities or other characteristics that preclude our obtaining marketing approval or prevent or limit commercial use;
- the population studied in the clinical program may not be sufficiently broad or representative to assure efficacy and safety in the full population for which we seek approval;
- we may be unable to demonstrate to the FDA or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio when compared to the standard of care is acceptable;
- the data collected from preclinical or clinical trials of our product candidates may not be sufficient to support the submission of an NDA, or other submission or to obtain regulatory approval in the United States or elsewhere;
- we may be unable to demonstrate to the FDA, EMA or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio for its proposed indication is acceptable;
- the FDA, EMA or comparable foreign regulatory authorities may fail to approve the manufacturing processes, test procedures and specifications, or facilities of third party manufacturers with which we contract for preclinical, clinical and commercial supplies; and
- the approval policies or regulations of the FDA, EMA or comparable foreign regulatory authorities may significantly change in a manner rendering our preclinical or clinical data insufficient for approval.

This lengthy approval process, as well as the unpredictability of the results of clinical trials, may result in our failing to obtain regulatory approval to market any of our product candidates, which would significantly harm our business, results of operations, and prospects.

If the FDA does not conclude that certain of our product candidates satisfy the requirements for the Section 505(b)(2) regulatory approval pathway, or if the requirements for such product candidates under Section 505(b)(2) are not as we expect, the approval pathway for those product candidates will likely take significantly longer, cost significantly more and entail significantly greater complications and risks than anticipated, and in either case may not be successful.

We plan to seek FDA approval through the Section 505(b)(2) regulatory pathway for kT-001Pro. The Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Act, added Section 505(b)(2) to the FDCA. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies that were not conducted by or for the applicant and for which the applicant has not obtained a right of reference. Section 505(b)(2), if applicable to us under the FDCA, would allow an NDA we submit to the FDA to rely in part on data in the public domain or the FDA's prior conclusions regarding the safety and effectiveness of approved compounds, which could expedite the development program for our product candidates by potentially decreasing the amount of clinical data that we would need to generate in order to obtain FDA approval. If the FDA does not allow us to pursue the Section 505(b)(2) regulatory pathway as anticipated, we may need to conduct additional clinical trials, provide additional data and information, and meet additional standards for regulatory approval. If this were to occur, the time and financial resources required to obtain FDA approval for these product candidates, and complications and risks associated with these product candidates, would likely substantially increase. We could need to obtain more additional funding, which could result in significant dilution to the ownership interests of our then existing

stockholders to the extent we issue equity securities or convertible debt. We cannot assure you that we would be able to obtain such additional financing on terms acceptable to us, if at all. Moreover, inability to pursue the Section 505(b)(2) regulatory pathway would likely result in new competitive products reaching the market more quickly than our product candidates, which would likely materially adversely impact our competitive position and prospects. Even if we are allowed to pursue the Section 505(b)(2) regulatory pathway, we cannot assure you that our product candidates will receive the requisite approvals for commercialization.

In addition, notwithstanding the approval of a number of products by the FDA under Section 505(b)(2) over the last few years, certain brand-name pharmaceutical companies and others have objected to the FDA's interpretation of Section 505(b)(2). If the FDA's interpretation of Section 505(b)(2) is successfully challenged, the FDA may change its Section 505(b)(2) policies and practices, which could delay or even prevent the FDA from approving any NDA that we submit under Section 505(b)(2). The pharmaceutical industry is highly competitive, and Section 505(b)(2) NDAs are subject to special requirements designed to protect the patent rights of sponsors of previously approved drugs that are referenced in a Section 505(b)(2) NDA. These requirements may give rise to patent litigation and mandatory delays in approval of our NDAs for up to 30 months or longer depending on the outcome of any litigation. It is not uncommon for a manufacturer of an approved product to file a citizen petition with the FDA seeking to delay approval of, or impose additional approval requirements for, pending competing products. If successful, such petitions can significantly delay, or even prevent, the approval of the new product. However, even if the FDA ultimately denies such a petition, the FDA may substantially delay approval while it considers and responds to the petition. In addition, even if we are able to utilize the Section 505(b)(2) regulatory pathway, there is no guarantee this would ultimately lead to faster product development or earlier approval.

Moreover, even if our product candidates are approved under Section 505(b)(2), the approval may be subject to limitations on the indicated uses for which the products may be marketed or to other conditions of approval, or may contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the products.

If we file a Section 505(b)(2) application that references a product marketed by another manufacturer, we may be subject to a patent infringement suit and the approval of our product may be delayed.

If we file a Section 505(b)(2) application that relies in whole or in part on studies conducted by a third party, we will be required to certify to the FDA that either: (1) there is no patent information listed in the FDA's publication *Approved Drug Products with Therapeutic Equivalence Evaluations*, which we refer to as the Orange Book, with respect to the third party NDA for the applicable approved drug candidate; (2) the patents listed in the Orange Book have expired; (3) the listed patents have not expired, but will expire on a particular date and approval is sought after patent expiration; or (4) the listed patents are invalid or will not be infringed by the manufacture, use or sale of our drug. A certification that our new drug will not infringe the Orange Book-listed patents for the applicable approved drug candidate, or that such patents are invalid, is called a paragraph IV certification. If we submit a paragraph IV certification to the FDA, a notice of the paragraph IV certification must also be sent to the NDA holder once our Section 505(b)(2) application is accepted for filing by the FDA. The third party may then initiate a lawsuit to defend the patents identified in the notice. The filing of a patent infringement lawsuit within 45 days of receipt of the notice automatically prevents the FDA from approving the Section 505(b)(2) application until the earliest of 30 months or the date on which the patent expires, the lawsuit is settled, or the court reaches a decision in the infringement lawsuit in favor of us.

The third party may file a patent infringement lawsuit outside the 45-day period, in which case, our Section 505(b)(2) application will not be subject to the 30-month stay of FDA approval.

Our product candidates may cause undesirable side effects or have other properties that could halt their clinical development, prevent their regulatory approval, limit their commercial potential, or result in significant negative consequences.

Adverse events or other undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay, or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, EMA or other comparable foreign regulatory authorities. Drug-related side effects could affect patient recruitment, the ability of enrolled patients to complete the study, and/or result in potential product liability claims. We are required to maintain product liability insurance pursuant to our business practice. We may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations, prospects, and business. In addition, regardless of merit or eventual outcome, product liability claims may result in impairment of our business reputation, withdrawal of clinical trial participants, costs due to related litigation, distraction of management's attention from our primary business, initiation of investigations by regulators, substantial monetary awards to patients or other claimants, the inability to commercialize our product candidates, and decreased demand for our product candidates, if approved for commercial sale.

Additionally, if one or more of our product candidates receives marketing approval, and we or others later identify undesirable side effects or adverse events caused by such products, a number of potentially significant negative consequences could result, including, but not limited to:

- regulatory authorities may withdraw approvals of such product or impose restrictions on distribution;
- regulatory authorities may require additional warnings or contraindications on the label that could diminish the usage or otherwise limit the commercial success of the product;
- we may be required to change the way the product is administered or conduct additional clinical trials or post-approval studies;
- we may be forced to suspend marketing of the product;
- we may be required to create a REMS plan, which could include a medication guide outlining the risks of such side effects for distribution to patients, a communication plan for healthcare providers, and/or other elements to assure safe use;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

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

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

We may in the future choose to conduct one or more clinical trials outside the United States, including in Europe. The acceptance of study data from clinical trials conducted outside the United States or another jurisdiction by the FDA, EMA or applicable foreign regulatory authority may be subject to certain conditions. In cases where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the United States population and United States medical practice; and (ii) the trials were performed by clinical investigators of recognized competence and pursuant to cGCP regulations. Additionally, the FDA's clinical trial requirements, including sufficient size of patient populations and statistical significance, must be met. Many foreign regulatory bodies have similar approval requirements. In addition, such foreign trials

would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA, EMA or any applicable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA, EMA or any applicable foreign regulatory authority does not accept such data, it would result in the need for additional trials, which would be costly and time-consuming and delay aspects of our business plan, and which may result in our product candidates not receiving approval or clearance for commercialization in the applicable jurisdiction, and could significantly harm our business, prospects, financial condition, and results of operations.

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

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

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

Even if we obtain regulatory approval for a product candidate, our products will remain subject to extensive regulatory scrutiny.

If any of our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies, and submission of safety, efficacy, and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities.

Manufacturers and manufacturers' facilities are required to comply with extensive requirements imposed by the FDA, EMA and comparable foreign regulatory authorities, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any NDA, biologics license application to the FDA, or BLA or marketing authorization application, or MAA. Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory approvals that we receive for our product candidates will be subject to limitations on the approved indicated uses for which the product may be marketed and promoted or to the conditions of approval (including the requirement to implement a REMS), or contain requirements for potentially costly post-marketing testing. We will be required to report certain adverse reactions and production problems, if any, to the FDA, EMA and comparable foreign regulatory authorities. Any new legislation addressing drug safety issues could result in delays in product development or commercialization, or increased costs to assure compliance. The FDA and other agencies, including the Department of Justice, closely regulate and monitor the post-approval

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marketing and promotion of products to ensure that they are manufactured, marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. We will have to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. As such, we may not promote our products for indications or uses for which they do not have approval. The holder of an approved NDA, BLA, or MAA must submit new or supplemental applications and obtain approval for certain changes to the approved product, product labeling, or manufacturing process. We could also be asked to conduct post-marketing clinical trials to verify the safety and efficacy of our products in general or in specific patient subsets. If original marketing approval was obtained via the accelerated approval pathway, we could be required to conduct a successful post-marketing clinical trial to confirm clinical benefit for our products. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- issue warning letters that would result in adverse publicity;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approvals;
- suspend any of our ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our contract manufacturers' facilities;
- mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;
- refuse to allow us to enter into government contracts;
- seize or detain products, refuse to permit the import or export of products; or
- require a product recall.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our products. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

In addition, the FDA's regulations, policies or guidance may change and new or additional statutes or government regulations in the United States and other jurisdictions may be enacted that could further restrict or regulate post-approval activities. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from pending or future legislation or administrative action, either in the United States or abroad. If we are not able to achieve and maintain regulatory compliance, we may not be permitted to market our products and/or product candidates, which would adversely affect our ability to generate revenue and achieve or maintain profitability.

Although we have received orphan drug designation for IkT-001Pro and may seek orphan drug designation for other product candidates, we may be unable to maintain the benefits associated with orphan drug designation, including market exclusivity, for IkT-001Pro, and may be unable to obtain such a designation for other product candidates. This may cause our revenue, if any, to be reduced.

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, defined as a disease or condition with a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States when there is no reasonable expectation that the cost of developing and making available the drug or biologic in the United States will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting an NDA or BLA. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for a particular active ingredient for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other NDA or BLA applications to market the same drug or biologic for the same indication for seven years, except in limited circumstances such as a showing of clinical superiority to the product with orphan exclusivity or if the FDA finds that the holder of the orphan exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan product to meet the needs of patients with the disease or condition for which the drug was designated. As a result, even if one of our product candidates receives orphan exclusivity, the FDA can still approve other drugs that have a different active ingredient for use in treating the same indication or disease. Furthermore, the FDA can waive orphan exclusivity if we are unable to manufacture sufficient supply of our product. If we lose orphan drug designation in the future for any orphan designated product, the development costs for that product may outweigh the economic benefits from FDA approval, if any, and commercialization.

Although we intend to seek a breakthrough therapy designation for IkT-148009 and may seek a breakthrough therapy designation for other product candidates in the future, we might not receive such designation, and even if we do, such designation may not lead to a faster development of any product candidate or approval process for any product candidate.

We intend to seek a breakthrough therapy designation for IkT-148009 in one or more indications or for other product candidates. 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 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 may also be eligible for priority review if supported by clinical data at the time the NDA is submitted to the FDA.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe that 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 of any product candidate or approval process for product candidate. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Healthcare legislative measures aimed at reducing healthcare costs may have a material adverse effect on our business and results of operations.

The United States and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that may affect our ability to profitably sell our product and product candidates, if approved. The United States government, state legislatures and foreign governments also have shown significant interest in implementing cost-containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs.

The Affordable Care Act was intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

There have been significant ongoing judicial, administrative, executive and legislative efforts to modify or eliminate the Affordable Care Act. For example, the Tax Act enacted on December 22, 2017, repealed the shared responsibility payment for individuals who fail to maintain minimum essential coverage under section 5000A of the Internal Revenue Code, commonly referred to as the individual mandate. The Trump administration issued executive orders which sought to reduce burdens associated with the Affordable Care Act and modified how it was implemented. Other legislative changes have been proposed and adopted since passage of the Affordable Care Act.

The Affordable Care Act has also been subject to challenges in the courts. On December 14, 2018, a Texas U.S. District Court Judge ruled that the Affordable Care Act is unconstitutional in its entirety because the “individual mandate” was repealed by Congress. On December 18, 2019, the Fifth Circuit U.S. Court of Appeals held that the individual mandate is unconstitutional and remanded the case to the Texas District Court to reconsider its earlier invalidation of the entire Affordable Care Act. An appeal was taken to the U.S. Supreme Court which heard oral arguments in the case on November 10, 2020. A ruling is expected in 2021.

Further changes to and under the Affordable Care Act remain possible and President Biden has indicated that he intends to undo changes to the Affordable Care Act made by the Trump administration and would advocate for legislation to build on the Affordable Care Act. It is unknown precisely what form any such changes or any law would take, and how or whether it may affect our business in the future. We expect that changes or additions to the Affordable Care Act, the Medicare and Medicaid programs, changes allowing the federal government to directly negotiate drug prices and changes stemming from other healthcare reform measures, especially with regard to healthcare access, financing or other legislation in individual states, could have a material adverse effect on the healthcare industry.

We expect that the Affordable Care Act, as well as other healthcare reform measures that have and may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for our product and product candidates, if approved, and could seriously harm our future revenues. Any reduction in reimbursement from Medicare, Medicaid, or other government programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain and maintain profitability of our product and product candidates, if approved.

Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk of fraud, misconduct or other illegal activity by our employees, independent contractors, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and negligent conduct that fails to:

- comply with the laws of the FDA, EMA and other comparable foreign regulatory authorities;
- provide true, complete and accurate information to the FDA, EMA and other comparable foreign regulatory authorities;
- comply with manufacturing standards we have established;
- comply with healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws; or
- report financial information or data accurately or to disclose unauthorized activities to us.

If we obtain FDA approval of any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. In particular, research, sales, marketing, education and other business arrangements in the healthcare industry are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, educating, marketing and promotion, sales and commission, certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of business conduct and ethics, but it is not always possible to identify and deter misconduct by employees and third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

If we fail to comply with healthcare laws, we could face substantial penalties and our business, operations and financial conditions could be adversely affected.

Healthcare providers, physicians and payors play a primary role in the recommendation and prescription of any product candidates for which we may obtain marketing approval. Our future arrangements with 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 any product candidates for which we may obtain marketing approval. Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. Restrictions under applicable federal, state and foreign healthcare laws and regulations may affect our ability to operate and expose us to areas of risk, including:

- federal civil and criminal false claims laws and civil monetary penalty laws, including the False Claims Act, which impose criminal and civil penalties, including through civil "qui tam" or "whistleblower" actions, against individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other third party payors that are false or fraudulent or knowingly making a false statement to improperly avoid, decrease or conceal an obligation to pay money to the federal government. A person or entity does not need to have actual knowledge of these statutes or specific intent to violate them in order to have committed a violation;

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- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose requirements 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, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization;
- the federal Physician Payments Sunshine Act, created under the ACA, and its implementing regulations, which require manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program to report annually to the U.S. Department of Health and Human Services under the Open Payments Program, information related to payments or other transfers of value made to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members, as well as other state and foreign laws regulating marketing activities;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers; and
- analogous state and foreign laws and regulations, such as state and foreign anti-kickback, false claims, consumer protection and unfair competition laws which may apply to pharmaceutical business practices, including, but not limited to, research, distribution, sales and marketing arrangements as well as submitting claims involving healthcare items or services reimbursed by any third party payer, including commercial insurers; 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 that otherwise restricts payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to file reports with states regarding pricing and marketing information, such as the tracking and reporting of gifts, compensations and other remuneration and items of value provided to healthcare professionals and entities; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

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, despite our efforts to comply, be subject to challenge under one or more of such laws. Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations. In addition, the approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

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

We and any contract manufacturers and suppliers we currently or may in the future engage are subject to numerous federal, state, and local environmental, health, and safety laws, regulations, and permitting requirements, including those governing laboratory procedures; the generation, handling, use, storage, treatment, and disposal of hazardous and regulated materials and wastes; the emission and discharge of hazardous materials into the ground, air, and water; and employee health and safety. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. 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. Under certain environmental laws, we could be held responsible for costs relating to any contamination at our current or past facilities and at third party facilities. We also could incur significant costs associated with civil or criminal fines and penalties.

Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our research, product development and manufacturing efforts. In addition, we cannot entirely eliminate the risk of accidental injury or contamination from these materials or wastes. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty, and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our preclinical trials, future clinical trials or regulatory approvals could be suspended, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Risks Related to Our Reliance on Third Parties

We currently rely on and expect to continue to rely on third parties to conduct our clinical trials and preclinical testing, as well as future research and clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, research, or testing.

We currently rely and expect to continue to rely on third parties, such as CROs, clinical data management organizations, medical institutions, and clinical investigators, to conduct our research, preclinical testing and clinical research and current clinical trial and will rely on such third parties to conduct any future clinical trials. Any of these third parties may terminate their engagements with us or be unable to fulfill their contractual obligations. If we need to enter into alternative arrangements, it would delay our product development activities.

Our reliance on these third parties for research and development activities reduces our control over these activities but does not relieve us of our responsibilities. For example, we remain responsible for ensuring that any current or future clinical trials would be conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with cGCPs for conducting, recording, and reporting the results of our current Phase 1 or any future clinical trials to assure that data and reported results are credible, reproducible and accurate and that the rights, integrity, and confidentiality of trial participants are protected. We also are required to register any current or future clinical trials and post the results of completed clinical trials on a government-sponsored database within certain timeframes. Failure to do so can result in fines, adverse publicity, and civil and criminal sanctions.

Our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our ongoing preclinical programs and any future clinical trials. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the preclinical or clinical data they obtain is compromised due to the failure to adhere to our preclinical or future clinical protocols, regulatory requirements or for other reasons, our preclinical and any future clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, the commercial prospects for our product candidates would be harmed, our costs could increase substantially and our ability to generate revenue could be delayed.

Switching or adding additional CROs involves additional cost and requires management time and focus. Identifying, qualifying and managing performance of third party service providers can be difficult, time-consuming and cause delays in our development programs. In addition, there is a natural transition period when a new CRO commences work and the new CRO may not provide the same type or level of services as the original provider. If any of our relationships with our CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. As a result, delays may occur, which can materially impact our ability to meet our desired clinical development timelines.

Additionally, if these third parties do not successfully carry out their contractual duties, meet expected deadlines, or conduct our preclinical or our current Phase 1 or any future 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 any product candidates we may develop and will not be able to, or may be delayed in our efforts to, successfully commercialize our medicines.

We also expect to rely on other third parties to store and distribute drug supplies for our current Phase 1 or any future clinical trials. Any performance failure on the part of our distributors could delay future clinical development or marketing approval of any product candidates we may develop or commercialization of our medicines, producing additional losses and depriving us of potential product revenue.

We expect to depend in whole or in part on collaborations with third parties for the research, development and commercialization of any product candidates we may develop. If any such collaborations are not successful, we may not be able to realize the market potential of those product candidates.

We expect to work with third party collaborators in whole or in part for the development and commercialization of any product candidates we may develop. Our collaborators may include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and academic institutions and commercial research organizations. If we enter into any such arrangements with any third parties, we will likely have shared or limited control over the amount and timing of resources that our collaborators dedicate to the development or potential commercialization of any product candidates we may seek to develop with them. Our ability to generate revenue from these arrangements with commercial entities will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements. We cannot predict the success of any collaboration that we enter into.

Such collaborations pose the following risks to us:

- collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not properly obtain, maintain, enforce, or defend intellectual property or proprietary rights relating to our product candidates or research programs or may use our proprietary information in such a way as to expose us to potential litigation or other intellectual property related proceedings, including proceedings challenging the scope, ownership, validity and enforceability of our intellectual property;

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- we may need the cooperation of our collaborators to enforce or defend any intellectual property we contribute to or that arises out of our collaborations, which may not be provided to us;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development, or commercialization of our product candidates or research programs or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborators may decide to not pursue development and commercialization of any product candidates we develop or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborator's strategic focus or available funding or external factors such as an acquisition that diverts resources or creates 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;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates or research programs if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- collaborators with marketing and distribution rights to one or more product candidates may not commit sufficient resources to the marketing and distribution of such product candidates;
- we may lose certain valuable rights under circumstances identified in our collaborations;
- collaborators may undergo a change of control and the new owners may decide to take the collaboration in a direction which is not in our best interest;
- collaborators may become bankrupt, which may significantly delay our research or development programs, or may cause us to lose access to valuable technology, know-how or intellectual property of the collaborator relating to our products, product candidates or research programs;
- key personnel at our collaborators may leave, which could negatively impact our ability to productively work with our collaborators;
- collaborations may require us to incur short- and long-term expenditures or issue securities that dilute our stockholders or disrupt our management and business;
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates; and
- collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our development or commercialization program under such collaboration could be delayed, diminished, or terminated.

We may face significant competition in seeking appropriate collaborations. Recent business combinations among biotechnology and pharmaceutical companies have resulted in a reduction of potential collaborators. In addition, the negotiation process is time-consuming and complex, and we may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop product candidates or bring them to market and generate product revenue.

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If we enter into collaborations to develop and potentially commercialize any product candidates, we may not be able to realize the benefit of such transactions if we or our collaborator elect not to exercise the rights granted under the agreement or if we or our collaborator are unable to successfully integrate a product candidate into existing operations. In addition, if our agreement with any of our collaborators terminates, our access to technology and intellectual property licensed to us by that collaborator may be restricted or terminate entirely, which may delay our continued development of our product candidates utilizing the collaborator's technology or intellectual property or require us to stop development of those product candidates completely. We may also find it more difficult to find a suitable replacement collaborator or attract new collaborators, and our development programs may be delayed or the perception of us in the business and financial communities could be adversely affected. Many of the risks relating to product development, regulatory approval, and commercialization described in this "Risk Factors" section also apply to the activities of our collaborators and any negative impact on our collaborators may adversely affect us.

We contract with third parties for the manufacture of materials for our research programs, preclinical studies and current clinical trial and expect to continue to do so for any future clinical trials and for commercialization of any product candidates that we may develop. This reliance on third parties carries and may increase the risk that we will not have sufficient quantities of such materials or product candidates that we may develop and commercialize, or that such supply will not be available to us at an acceptable cost, which could delay, prevent, or impair our development or commercialization efforts.

We do not currently have any manufacturing facilities. We currently rely on third party manufacturers for the manufacture of our materials for preclinical studies and current clinical trial and expect to continue to do so, including for any future clinical trials, unless we choose to establish our own manufacturing facilities for preclinical studies, any current and future clinical trials and for commercial supply of any product candidates that we may develop.

We may be unable to establish any further 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:

- the possible breach of the manufacturing agreement by the third party;
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us;
- reliance on the third party for regulatory compliance, quality assurance, safety, and pharmacovigilance and related reporting; and
- the inability to produce required volume in a timely manner and to quality standards.

Third party manufacturers may not be able to comply with cGMP regulations or similar regulatory requirements outside the United States. Our third party manufacturers may have little or no experience manufacturing materials that we require for our preclinical studies and our current Phase 1 study and future clinical trials. Our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in clinical holds on our trials, sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocations, seizures or recalls of product candidates, operating restrictions, and criminal prosecutions, any of which could significantly and adversely affect our business, financial condition, results of operations, and prospects.

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

Any performance failure on the part of our existing or future manufacturers could delay any future clinical development or marketing approval. We do not currently have arrangements in place for redundant supply for

any of our product candidates. If any one of our current contract manufacturers cannot perform as agreed, we may be required to replace that manufacturer and may incur added costs and delays in identifying and qualifying any such replacement. Furthermore, securing and reserving production capacity with contract manufacturers may result in significant costs.

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

Manufacturing issues may arise that could increase product and regulatory approval costs or delay commercialization.

As we scale up manufacturing of our product candidates and conduct required stability testing, we may encounter product, packaging, equipment and process-related issues that may require refinement or resolution in order to proceed with any current or future clinical trials and obtain regulatory approval for commercial marketing. In the future, we may identify impurities, which could result in increased scrutiny by regulatory authorities, delays in our clinical programs and regulatory approval, increases in our operating expenses, or failure to obtain or maintain approval for our product candidates.

We depend on third party suppliers for key raw materials used in the manufacturing processes for our product candidates, and the loss of these third party suppliers or their inability to supply us with adequate raw materials could harm our business.

We rely on third party suppliers for the raw materials required for the production of our product candidates. Our dependence on these third party suppliers and the challenges we may face in obtaining adequate supplies of raw materials involve several risks, including limited control over pricing, availability, quality and delivery schedules. As a small company, our negotiation leverage is limited and we are likely to get lower priority than our competitors who are larger than we are. We cannot be certain that our suppliers will continue to provide us with the quantities of these raw materials that we require or satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or sole sourced raw materials could materially harm the ability to manufacture our product candidates until a new source of supply, if any, could be identified and qualified. We may be unable to find a sufficient alternative supply channel in a reasonable time or on commercially reasonable terms. Any performance failure on the part of our suppliers could delay the development and potential commercialization of our product candidates, including limiting supplies necessary for future clinical trials and regulatory approvals, which would have a material adverse effect on our business.

We currently rely on a small number of suppliers for manufacturing our product candidates.

We currently rely on a small number of chemical manufacturers for our product candidates. If our suppliers were to have their businesses disrupted either inside or outside of the United States, we might be unable to find a replacement for such source in a timely manner, if at all. If a manufacturer were to be acquired by a competitor, the competitor may elect not to continue to manufacture for us at all. The loss of a supplier could cause manufacturing delays given the strict licensing requirements in this industry. If for any reason we were to change any one of our third-party contract manufacturers, we could face difficulties that might adversely affect our ability to maintain an adequate supply of our products, and we would incur costs and expend resources in the course of making the change. Moreover, we might not be able to obtain terms as favorable as those received from our current third-party contract manufacturers, which in turn would increase our costs.

We are dependent on third-party manufacturers which are located in China, and any inability to obtain products from any such manufacturers could harm our business.

Many of our current and future product candidates are expected to be manufactured in whole or in part by companies that are located in China. This concentration exposes us to risks associated with doing business

globally. The political, legal and cultural environment in China is rapidly evolving, and any change that impairs our ability to obtain products from manufacturers in that region could have a material adverse effect on our business, operating results and financial condition.

Political uncertainty in the United States may result in significant changes to U.S. trade policies, treaties and tariffs, potentially involving trade policies and tariffs regarding China, including the potential disallowance of tax deductions for imported merchandise or the imposition of unilateral tariffs on imported products.

These developments, or the perception that any of them could occur, may have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global trade and, in particular, trade between China and the United States. Any of these factors could depress economic activity, restrict our sourcing from suppliers and have a material adverse effect on our business, financial condition and results of operations and affect our strategy. We cannot predict whether any of the countries in which our product candidates or raw materials are currently manufactured or may be manufactured in the future will be subject to additional trade restrictions imposed by the United States and foreign governments, nor can we predict the likelihood, type or effect of any such restrictions.

Moreover, the potential for recurrence of the COVID-19 pandemic in China could impair our ability to obtain product candidates and raw materials from manufacturers in that region or to obtain products at marketable rates. Such events may result in the need for us to consider and establish relationships with manufacturers in different countries from which to source our product candidates and raw materials and could have a material adverse effect on our business, operating results and financial condition.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain patent protection for any product candidates we develop, our competitors could develop and commercialize products or technology similar or identical to ours, and our ability to successfully commercialize any product candidates we may develop, and our technology may be adversely affected.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries for compositions of matter for each of our product candidates and any other technologies we may develop. We seek to protect our proprietary position by prosecuting intellectual property and filing patent applications in the United States and abroad relating to our product candidates, as well as other technologies that are important to our business. Given that the development of our technology and product candidates is at an early stage, our intellectual property portfolio with respect to certain aspects of our technology and product candidates is also at an early stage. We have filed patent applications on these aspects of our technology and core product candidates; however, there can be no assurance that any such patent applications will issue as granted patents. Furthermore, in some cases, we have only filed provisional patent applications on certain aspects of our technology and product candidates and each of these provisional patent applications is not eligible to become an issued patent until, among other things, we file a non-provisional patent application within 12 months of the filing date of the applicable provisional patent application. Any failure to file a non-provisional patent application within this timeline could cause us to lose the ability to obtain patent protection for the inventions disclosed in the associated provisional patent applications. Furthermore, in some cases, we may not be able to obtain issued claims covering compositions relating to our product candidates, as well as other technologies that are important to our business, and instead may need to rely on filing patent applications with claims covering a method of use and/or method of manufacture for protection of such product candidates and other technologies. There can be no assurance that any such patent applications will issue as granted patents, and even if they do issue, such patent claims may be insufficient to prevent third parties, such as our competitors, from utilizing our technology. Any failure to obtain or maintain patent protection with respect to our product candidates could have a material adverse effect on our business, financial condition, results of operations, and prospects.

If any of our owned or in-licensed patent applications do not issue as patents in any jurisdiction, we may not be able to compete effectively.

Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our inventions, obtain, maintain, and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our owned and licensed patents. With respect to both in-licensed and owned intellectual property, 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 or other third parties.

The patent prosecution process is expensive, time-consuming, and complex, and we may not be able to file, prosecute, maintain, enforce, 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 in time to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors, and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable over the prior art. Furthermore, 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 at all. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in any of our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

If the scope of any patent protection we obtain is not sufficiently broad, or if we lose any of our patent protection, our ability to prevent our competitors from commercializing similar or identical technology and product candidates would be adversely affected.

The patent position of pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. Our owned or in-licensed pending and future patent applications may not result in patents being issued which protect our product candidates or other technologies or which effectively prevent others from commercializing competitive technologies and product candidates.

Moreover, 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 patent applications we license or own currently or in the future issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we own or in-license may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, we do not know whether our product candidates or other technologies will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect our business, prospects, financial condition, results of operations and prospects.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. We or our licensors may be subject to a third party pre-issuance submission of prior art to the United States Patent and Trademark Office, or USPTO, or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter*

partes review, or interference proceedings or other similar proceedings challenging our owned or licensed patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our owned or in-licensed patent rights, allow third parties to commercialize our product candidates or other technologies and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third party patent rights. Moreover, we, or one of our licensors, may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our or our licensor's priority of invention or other features of patentability with respect to our owned or in-licensed patents and patent applications. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our product candidates and other technologies. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us.

In addition, given the amount of time required for the development, testing, and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Some of our owned and in-licensed patents and patent applications are, and may in the future be, co-owned with third parties. For example, we co-own certain patents and patent applications relating to our prodrug technology to be applied to protein kinase inhibitors for oncology and non-oncology indications that was jointly developed with Sphaera Pharma Pte. Ltd., or Sphaera. Our exclusive rights to certain of these patents and patent applications are dependent, in part, on operating agreements between the joint owners of such patents and patent applications. If our licensors or co-owners fail to sustain the grant of exclusive licenses to us or we are otherwise unable to maintain such exclusive rights, our licensors or co-owners may be able to license these rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of our licensors and co-owners in order to enforce such patents against third parties, and such cooperation may not be provided to us. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

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

We have entered into license agreements with third parties and may need to obtain additional licenses from others to advance our research or allow commercialization of product candidates. It is possible that we may be unable to obtain additional licenses at a reasonable cost or on reasonable terms, if at all. In that event, 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 product candidates, which could harm our business, financial condition, results of operations, and prospects significantly. We cannot provide any assurances that third party patents do not exist which might be enforced against our current technology, manufacturing methods, product candidates, or future methods or products resulting in either an injunction prohibiting our manufacture or future sales, or, with respect to our future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant.

In addition, each of our license agreements, and we expect our future agreements, will impose various development, diligence, commercialization, and other obligations on us. Certain of our license agreements also require us to meet development timelines, or to exercise commercially reasonable efforts to develop and

commercialize licensed products, in order to maintain the licenses. In spite of our efforts, our licensors might conclude that we have materially breached our obligations under such license agreements and might therefore terminate the license agreements, thereby removing or limiting our ability to develop and commercialize products and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors or other third parties would have the freedom to seek regulatory approval of, and to market, products identical to ours and we may be required to cease our development and commercialization of certain of our product candidates. Any of the foregoing could have a material adverse effect on our competitive position, business, prospects, financial conditions, results of operations, and prospects.

Moreover, 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, prospects, financial condition and results of operations. 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 product candidates, which could have a material adverse effect on our business, prospects, financial conditions and results of operations.

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

Filing, prosecuting, and defending patents on our product candidates and other technologies 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. 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 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 pharmaceutical 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.

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 are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and this may have material adverse effects on our business, prospects, financial condition and results of operations.

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

Periodic maintenance fees, renewal fees, annuity fees, and various other government fees on patents and applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our owned or licensed patents and applications. In certain circumstances, we rely on our licensing partners to pay these fees due to U.S. and non-U.S. patent agencies. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment, and other similar provisions during the patent application process. We are also dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, prospects, financial condition and results of operations.

Changes in U.S. patent law 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 the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. 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 America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other 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. A third party that files a patent application in the USPTO after March 2013, but before us, could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either (i) file any patent application related to our product candidates or other technologies or (ii) invent any of the inventions claimed in our or our licensor's patents or patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our owned or in-licensed patent applications and the enforcement or defense of our owned or in-licensed issued patents, all of which could have a material adverse effect on our business, prospects, financial condition and results of operations.

In addition, the patent positions of companies in the development and commercialization of 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 existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

Issued patents covering our product candidates and other technologies could be found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad.

If we or one of our licensors initiated legal proceedings against a third party to enforce a patent covering our product candidates or other technologies, the defendant could counterclaim that such patent is 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 raise claims challenging the validity or enforceability of our owned or in-licensed patents 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 (e.g., opposition proceedings). Such proceedings could result in the revocation of, cancellation of, or amendment to our patents in such a way that they no longer cover product candidates or other technologies. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we or our licensing partners and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates or other technologies. Such a loss of patent protection would have a material adverse impact on our business, prospects, financial condition and results of operations.

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

Depending upon the timing, duration and specifics of any FDA marketing approval of any product candidates we may develop, one or more of our owned or in-licensed U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent term extension of

up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar extensions as compensation for patent term lost during regulatory review processes are also available in certain foreign countries and territories, such as in Europe under a Supplementary Patent Certificate. However, we may not be granted an extension in the United States and/or foreign countries and territories 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 applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is shorter than what we request, our competitors may obtain approval of competing products following our patent expiration, and could have a material adverse effect on our business, prospects, financial condition and results of operations.

We may be subject to claims challenging the inventorship 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 or other technologies. Litigation may be necessary to defend against these and other claims challenging inventorship 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 and other technologies. 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, prospects, financial condition and results of operations.

Some intellectual property may have been discovered through government funded programs and thus may be subject to federal regulations such as "march-in" rights, certain reporting requirements and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights, and limit our ability to contract with non-U.S. manufacturers.

All of our novel and in-licensed compounds were funded in whole or in part by the U.S. government, and are therefore subject to certain federal regulations. When new technologies are developed with U.S. government funding, the U.S. government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the U.S. government to use the invention or to have others use the invention on its behalf, commonly referred to as march-in rights. The U.S. government's rights may also permit it to disclose the funded inventions and technology to third parties and to exercise march-in rights to use or allow third parties to use the technology we have licensed that was developed using U.S. government funding. The U.S. government may exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, or because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States in certain circumstances and if this requirement is not waived. Any exercise by the U.S. government of such rights or by any third party of its reserved rights could have a material adverse effect on our business, prospects, financial condition, and results of operations.

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 our product candidates and other technologies, we also rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology, and other proprietary

information and to maintain our competitive position. Trade secrets and know-how can be difficult to protect. We expect our trade secrets and know-how to over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of personnel from academic to industry scientific positions. In addition, because we may collaborate with various collaborators on the development and commercialization of one or more of our product candidates and because we may rely on third parties to manufacture our product candidates, we may be required, at times, to share trade secrets with them prior to disclosing proprietary information. We seek to protect these trade secrets and other proprietary technology, in part, by entering into confidentiality agreements and, if applicable, material transfer agreements, consulting agreements or other similar agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors, and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants as well as train our employees not to bring or use proprietary information or technology from former employers to us or in their work, and remind former employees when they leave their employment of their confidentiality obligations. These agreements typically limit the rights of the third parties to use or disclose our confidential information, including our trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. Despite our 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. 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 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 from using that technology or information to compete with us. Given that our proprietary position is based, in part, on our know-how and trade secrets, 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, and may have an adverse effect on our business.

In addition, these agreements typically restrict the ability of our advisors, employees, third party contractors and consultants to publish data potentially relating to our trade secrets, although our agreements may contain certain limited publication rights. For example, any academic institution that we may collaborate with may be granted rights to publish data arising out of such collaboration, provided that we are notified in advance and given the opportunity to delay publication for a limited time period in order for us to secure patent protection of intellectual property rights arising from the collaboration, in addition to the opportunity to remove confidential or trade secret information from any such publication. Our existing collaborative research and development programs may require us to share trade secrets under the terms of our research and development collaborations or similar agreements. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets, either through breach of our agreements with third parties, independent development or publication of information by any of our third party collaborators. A competitor's discovery of our trade secrets would impair our competitive position and have an adverse impact on our business.

We may be subject to claims that our employees, consultants, or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.

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

former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or 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, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, prospects, financial condition and results of operations.

Third party claims of intellectual property infringement, misappropriation or other violation against us, our licensors or our collaborators may prevent or delay the development and commercialization of our product candidates and other technologies.

The field of discovering treatments for our target indications is highly competitive and dynamic. Due to the research and development that is taking place in this field, the intellectual property landscape is in flux, and it may remain uncertain in the future. As such, there may be significant intellectual property related litigation and proceedings relating to our owned and in-licensed, and other third party, intellectual property and proprietary rights in the future.

Our commercial success depends in part on our, our licensors' and our collaborators' ability to avoid infringing, misappropriating and otherwise violating the patents and other intellectual property rights of third parties. There is a substantial amount of complex litigation involving patents and other intellectual property rights in the pharmaceutical industry, as well as administrative proceedings for challenging patents, including interference, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. As discussed above, recently, due to changes in U.S. law referred to as patent reform, new procedures including inter partes review and post-grant review have been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to our patents in the future.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist relating to the fields in which we are developing our product candidates. As the pharmaceutical industry expands and more patents are issued, the risk increases that our product candidates and other technologies may give rise to claims of infringement of the patent rights of others. We cannot assure you that our product candidates and other technologies that we have developed, are developing or may develop in the future will not infringe existing or future patents owned by third parties. We may not be aware of patents that have already been issued and that a third party, for example, a competitor in the fields in which we are developing our product candidates, and other technologies might assert are infringed by our current or future product candidates or other technologies, including claims to compositions, formulations, methods of manufacture or methods of use or treatment that cover product candidates or other technologies. It is also possible that patents owned by third parties of which we are aware, but which we do not believe are relevant to our product candidates or other technologies, could be found to be infringed by our product candidates or other technologies. In addition, because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that our product candidates or other technologies may infringe.

Third parties may have patents or obtain patents in the future and claim that the manufacture, use or sale of our product candidates or other technologies infringes upon these patents. In the event that any third party claims that we infringe their patents or that we are otherwise employing their proprietary technology without authorization and initiates litigation against us, even if we believe such claims are without merit, a court of

competent jurisdiction could hold that such patents are valid, enforceable and infringed by our product candidates or other technologies. In this case, the holders of such patents may be able to block our ability to commercialize the applicable product candidate or technology unless we obtain a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. If we are unable to obtain a necessary license to a third party patent on commercially reasonable terms, we may be unable to commercialize our product candidates or other technologies, or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business.

Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be enjoined from further developing or commercializing our infringing product candidates or other technologies. In addition, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties and/or redesign our infringing product candidates or technologies, which may be impossible or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our product candidates or other technologies, which could harm our business significantly.

Engaging in litigation to defend against third parties alleging that we have infringed, misappropriated or otherwise violated their patents or other intellectual property rights is very expensive, particularly for a company of our size, and time-consuming. Some of our competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than we can because of greater financial resources. Patent litigation and other proceedings may also absorb significant management time. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings against us could impair our ability to compete in the marketplace. The occurrence of any of the foregoing could have a material adverse effect on our business, prospects, financial condition or results of operations.

We may become involved in lawsuits to protect or enforce our patents and other intellectual property rights, which could be expensive, time consuming, and unsuccessful.

Competitors may infringe our patents or the patents of our licensing partners, or we may be required to defend against claims of infringement. In addition, our patents or the patents of our licensing partners also may become involved in inventorship, priority or validity disputes. To counter or defend against such claims can be expensive and time consuming. In an infringement proceeding, a court may decide that a patent owned or in-licensed by us is invalid or unenforceable, the other party's use of our patented technology falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1), or may refuse to stop the other party from using the technology at issue on the grounds that our owned and in-licensed patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our owned or in-licensed patents at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

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 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 more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

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.

We have applied to register our primary trademarks in our primary market, the United States. Although the applications have been approved by the Trademark Office, and were unopposed when they were published for opposition, they have not issued to registration, and will not be registered until we use them on products in at least clinical trials, and file the required statements of use with the Trademark Office. We have not applied to register our trademarks in any foreign country and do not know if they are available for use or registration outside of the United States. In sum, we have not registered any of our trademarks or trade names in any of our geographic markets, and failure to secure those registrations could adversely affect our business. Our unregistered trademarks and trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. Indeed, since we have made no use of our trademarks or trade names in any clinical trials or commercially, it is unclear what enforceable rights, if any, we presently own in these marks or names, even in the United States. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other trademarks which are prior to our trademarks or trade names, and which are confusingly similar to our marks or names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, prospects, financial condition and results of operations.

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 products that are similar to our product candidates or utilize similar technology but that are not covered by the claims of the patents that we license or may own;
- we, or our current or future licensors or 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 licensed trade secret rights;
- it is possible that our current or future pending owned or licensed patent applications 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 or other third parties;
- our competitors or other third parties 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, provided those products do not infringe any patents we own or license in these markets;

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- we may not develop additional proprietary technologies that are patentable;
- we might not be able to protect our trademarks and/or trade names;
- 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, prospects, financial condition and results of operations.

Risks Related to Our Operations

We will need to grow the size and capabilities of our organization, and we may experience difficulties in managing this growth.

As of March 31, 2021, we had three full-time employees, and nine contractors to oversee critical activities and perform services on our behalf. Due to our limited employee headcount and dependence on contractors, we have operated with our employees and contractors conducting most of their activities outside of our offices. In addition, historically we have limited our cash compensation expenses.

As our development plans and strategies develop, and as we transition into operating as a public company, we must add a significant number of additional managerial, operational, financial, and other personnel, as well as expand our facilities. Future growth will impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, retaining, and motivating additional employees and consultants;
- identifying and leasing suitable corporate, development and/or research facilities;
- managing our internal development efforts effectively, including the clinical and FDA review process for our current and future product candidates, while complying with our contractual obligations to contractors and other third parties;
- expanding our operational, financial and management controls, reporting systems, and procedures; and
- managing increasing operational and managerial complexity.

Our future financial performance and our ability to continue to develop and, if approved, commercialize our product candidates will depend, in part, on our ability to effectively manage any future growth. Our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to manage these growth activities.

We currently rely, and for the foreseeable future will continue to rely, in substantial part on certain independent organizations, advisors and consultants to provide certain services. These independent organizations, advisors and consultants may be employed by entities other than us, and may have commitments that limit their time, resources and availability to perform services for us. There can be no assurance that the services of these independent organizations, advisors and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified replacements if necessary. In addition, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed, or terminated, and we may not be able to obtain regulatory approval of our product candidates or otherwise advance our business. There can be no assurance that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, if at all.

If we are not able to effectively expand our organization by hiring new employees and expanding our set of service providers, we may not be able to successfully implement the tasks necessary to further develop our product candidates and, accordingly, may not achieve our research, development, and commercialization goals.

We are highly dependent on our key personnel, and if we are not successful in attracting, motivating and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to compete in the highly competitive pharmaceutical industries depends upon our ability to attract, motivate and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on our management, particularly on our Chief Executive Officer, Dr. Werner, and our scientific and medical consultants and future personnel, including our board of directors and scientific advisory board, many of whom have significant experience in drug development and marketing, and who could prove hard to replace. The loss of the services provided by any of our executive officers, key employees and consultants, or other scientific and medical advisors, and our inability to find suitable replacements, could result in delays in the development of our product candidates and harm our business.

We conduct our operations in Atlanta, Georgia and Boston, Massachusetts, both regions that are headquarters to many other pharmaceutical companies and many academic and research institutions. Competition for skilled personnel is intense and the turnover rate can be high, which may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. Our consultants and advisors may be engaged or employed by entities other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. We expect that we may need to recruit talent from outside of our regions, and doing so may be costly and difficult.

To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have provided and will continue to provide restricted stock and/or stock option grants that vest over time. The value to employees of these equity grants that vest over time may be significantly affected by movements in our stock price that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. Although we have employment agreements with our key employees, these employment agreements, other than for Dr. Werner, provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. We do not maintain “key man” insurance policies on the lives of all of these individuals or the lives of any of our other employees. If we are unable to attract and incentivize quality personnel on acceptable terms, or at all, it may cause our business and operating results to suffer.

Our computer systems, or those used by our third-party research institution collaborators, CROs or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems and those of our future CROs and other contractors and consultants may be vulnerable to damage from computer viruses and unauthorized access. Although to our knowledge we have not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed, ongoing or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we rely on our third party research institution collaborators for research and development of our product candidates and other third parties for the manufacture of our product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or systems, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of our product candidates could be delayed.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations, and those of our third-party research institution collaborators, CROs, CMOs, suppliers, and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics such as COVID-19, and other natural or man-made disasters or business interruptions, for which we may not be insured. In addition, we rely on our third-party research institution collaborators for conducting research and development of our product candidates, and they may be affected by government shutdowns or withdrawn funding. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We rely on third party manufacturers to produce and process our product candidates. Our ability to obtain clinical supplies of our product candidates could be disrupted if the operations of these suppliers are affected by a man- made or natural disaster or other business interruption. Damage or extended periods of interruption to our facilities due to fire, natural disaster, power loss, communications failure, unauthorized entry or other events could cause us to cease or delay development of some or all of our product candidates.

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

As of December 31, 2020, we had federal net operating loss carryforwards of approximately \$7.0 million, which will begin to expire in varying amounts beginning in 2030. Under Sections 382 and 383 of the United States Internal Revenue Code of 1986, as amended, or the Code, and corresponding provisions of state law, if a corporation undergoes an “ownership change” (generally defined as a greater than 50-percentage-point cumulative change (by value) in the equity ownership of certain stockholders over a rolling three-year period), the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change taxable income or taxes may be limited. We may experience ownership changes in connection with this offering and in the future as a result of subsequent shifts in our stock ownership, some of which are outside our control. Our net operating loss carryforwards may also be subject to limitation under state laws. Further, our ability to utilize net operating loss carryforwards of companies that we may acquire in the future may also be subject to limitations. There is also a risk that due to tax law changes, such as suspensions on the use of net operating loss carryforwards, or other unforeseen reasons, our ability to use our pre-change net operating loss carryforwards and other pre-change tax attributes to offset post-change taxable income or taxes may be subject to limitation or expire.

Risks Related to This Offering and Ownership of Our Common Stock

We do not know whether an active, liquid and orderly market will develop for our common stock or what the market price of our common stock will be, and, as a result, it may be difficult for you to sell your shares of our common stock.

Before our initial public offering in December 2020, there was no public trading market for our common stock. If an active market for our common stock does not develop or is not sustained, it may be difficult for you to sell your shares of common stock at an attractive price or at all. We cannot predict the prices at which our common stock will trade. It is possible that in one or more future periods our results of operations and progression of our product candidates may not meet the expectations of public market analysts and investors, and, as a result of these and other factors, the price of our common stock may fall.

The market price of our common stock may be volatile, which could result in substantial losses for investors purchasing shares in this offering.

The public offering price for our common stock will be determined through negotiations with the underwriters. This public offering price may differ from the market price of our common stock after the offering.

As a result, you may not be able to sell your common stock at or above the public offering price. Some of the factors that may cause the market price of our common stock to fluctuate include:

- results of our preclinical studies and clinical trials, or regulatory status of our product candidates;
- results of preclinical studies, clinical trials, or regulatory approvals of product candidates of our competitors, or announcements about new research programs or product candidates of our competitors;
- delays in filing our INDs, commencing trials, or objections by the FDA as to the content of our INDs;
- failure or discontinuation of any of our product development and research programs;
- any delay of the FDA in approving, or failure to approve, the design of our planned clinical trials for our current product candidates or for any future product candidates that we may develop;
- the results of our efforts to develop additional product candidates or products;
- commencement or termination of collaborations for our product development and research programs;
- the success of existing or new competitive products or technologies;
- the level of expenses related to any of our research programs, clinical development programs, or product candidates that we may develop;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents, or other proprietary rights;
- actual or anticipated changes in estimates as to financial results, development timelines, or recommendations by securities analysts;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders, or other stockholders;
- expiration of lock-up agreements;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in estimates or recommendations by securities analysts, if any, that cover our stock;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical sector;
- general economic, industry, and market conditions; and
- the other factors described in this “Risk Factors” section.

In recent years, the stock market in general, and the market for pharmaceutical companies in particular, has experienced significant price and volume fluctuations that have often been unrelated or disproportionate to changes in the operating performance of the companies whose stock is experiencing those price and volume fluctuations. Broad market and industry factors may seriously affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our stock shortly following this offering. Following periods of such volatility in the market price of a company’s securities, securities class action litigation has often been brought against that company. Because of the potential volatility of our stock price, we may become the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management’s attention and resources from our business.

A majority of our total outstanding shares are restricted from immediate resale pursuant to certain lock-up agreements entered into between the underwriters of our initial public offering and all of our pre-initial public offering stockholders, but may be sold into the market after the expiration or termination of such lock-up agreements, which could cause the market price of our common stock to decline significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, which could occur upon the expiration of certain lock-up agreements entered into with many of our pre-initial public offering stockholders (including our officers and directors), the early release of such agreements, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares for any reason, could reduce the market price of our common stock. After this offering, we will have 18,133,345 shares of common stock outstanding based on 10,133,345 shares of our common stock outstanding as of June 7, 2021 and the assumed offering of 8,000,000 shares of our common stock in this offering. Of these shares, the 8,000,000 shares we are selling in this offering may be resold in the public market immediately. 8,250,849 shares, which represents shares subject to lock-up agreements executed in connection with our December 2020 initial public offering, are currently prohibited or otherwise restricted under securities laws or lock-up agreements entered into by our existing stockholders with the underwriters. However, subject to applicable securities law restrictions and excluding shares of restricted stock that will remain unvested, the shares that are subject to lock-up agreements will be able to be sold in the public market beginning 180 days after the date of this prospectus in the case of our directors and executive officers and 90 days after the date of this prospectus in the case of the Company and other stockholders party to lock-up agreements. The representatives of the underwriters may, in their sole discretion, release all or some portion of the shares subject to lock-up agreements at any time and for any reason. Shares held by our directors, executive officers and other affiliates will continue to be subject to certain limitations of Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. Shares issued upon the exercise of stock options outstanding under our equity incentive plans or pursuant to future awards granted under those plans will become available for sale in the public market to the extent permitted by the provisions of applicable vesting schedules, any applicable lock-up agreements, and Rule 144 under the Securities Act. See the section titled “Shares Eligible for Future Sale” for additional information.

After the completion of this offering, we also plan 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 and once vested, subject to volume limitations applicable to affiliates and the lock-up agreements described in the section titled “Underwriting” in this prospectus. If any of these additional shares are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

You will incur immediate and substantial dilution as a result of this offering.

If you purchase common stock in this offering, you will incur immediate and substantial dilution of \$2.92 per share, representing the difference between the assumed public offering price of \$5.65 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and our pro forma net tangible book value per share after giving effect to this offering. As of March 31, 2021, there were 3,665,072 shares subject to outstanding options with a weighted-average exercise price of \$2.38 per share and 721,913 shares subject to outstanding warrants with a weighted-average exercise price of \$5.83 per share. To the extent that these outstanding options are ultimately exercised or the underwriters exercise their option to purchase additional shares, you will incur further dilution. See the section titled “Dilution” for a further description of the dilution you will experience immediately after this offering.

We will require additional capital in the future and raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

We will require additional capital in the future and we may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. We, and indirectly, our stockholders, will bear the cost of issuing and servicing such securities.

Because our decision to issue debt or equity securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of any future offerings. To the extent that we raise additional capital through the sale of equity or debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. The incurrence of indebtedness would result in increased fixed payment obligations and could involve restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Additionally, any future collaborations we enter into with third parties may provide capital in the near term but limit our potential cash flow and revenue in the future. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms unfavorable to us.

Insiders will continue to have substantial influence over us after this offering, which could limit your ability to affect the outcome of key transactions, including a change of control.

After this offering, our directors, executive officers, holders of more than 5% of our outstanding stock and their respective affiliates will beneficially own shares representing approximately 44.7% of our outstanding common stock, assuming the issuance of 8,000,000 shares of our common stock in this offering. As a result, these stockholders, if they act together, will be able to influence our management and affairs and all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. Dr. Werner alone will continue to beneficially own shares representing approximately 29.7% of our outstanding common stock. This concentration of ownership may have the effect of delaying or preventing a change in control of our company and might affect the market price of our common stock.

We are an “emerging growth company” and a “smaller reporting 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,” as defined in the JOBS Act. For so long as we remain an emerging growth company, we are permitted and plan to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include, but are not limited to: (i) exemption from compliance with the auditor attestation requirements pursuant to SOX; (ii) exemption from compliance 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; (iii) reduced disclosure about our executive compensation arrangements; and (iv) 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 will continue to remain an emerging growth company until the earliest of the following: (i) the last day of the fiscal year following the fifth anniversary of the date of the completion of our December 2020 initial public offering; (ii) the last day of the fiscal year in which our total annual gross revenue is equal to or more than \$1.07 billion; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

In addition, we are currently a “smaller reporting company,” as defined in the Exchange Act and have elected to take advantage of certain of the scaled disclosures available to smaller reporting companies. To the extent that we continue to qualify as a “smaller reporting company” as such term is defined in Rule 12b-2 under the Exchange Act, after we cease to qualify as an emerging growth company, certain of the exemptions available to us as an “emerging growth company” may continue to be available to us as a “smaller reporting company,” including exemption from compliance with the auditor attestation requirements pursuant to SOX and reduced

disclosure about our executive compensation arrangements. We will continue to be a “smaller reporting company” until we have more than \$250 million in public float (based on our common stock) measured as of the last business day of our most recently completed second fiscal quarter or, in the event we have no public float (based on our common stock), annual revenues of more than \$100 million during the most recently completed fiscal year.

As a result, the information we provide stockholders will be different than the information that is available with respect to other public companies. In this prospectus, we have not included all of the executive compensation related information that would be required if we were not an emerging growth company, nor have we included all of the quantitative and qualitative disclosures about market risk that would be required if we were not a smaller reporting company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have opted to take advantage of this extended transition period for the adoption of certain accounting standards.

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 emerging growth company, we will incur significant legal, accounting, and other expenses that we did not incur as a private company. SOX, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of Nasdaq, 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. We expect that we will need to hire additional accounting, finance, and other personnel in connection with our efforts to comply with the requirements of being a public company, and our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements. These requirements will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that the rules and regulations applicable to us as a public company may make it more difficult and more expensive for us to obtain director and officer liability insurance, which could make it more difficult for us to attract and retain qualified members of our board of directors. We are currently 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 SOX, we will be required to furnish a report by our management on our internal control over financial reporting beginning with our second filing of an Annual Report on Form 10-K with the SEC. However, while we remain an emerging growth company or smaller reporting company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 of SOX within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants, 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 of SOX. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

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

We cannot specify with certainty the particular uses of the net proceeds we will receive from this offering. Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in the section titled “Use of Proceeds” in this prospectus. Our management may spend a portion or all of the net proceeds from this offering in ways that our stockholders may not desire or that may not yield a favorable return. The failure by our management to apply these funds effectively could have a material adverse effect on our business, prospects, financial condition and results of operations. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

We do not expect to pay any dividends for the foreseeable future. Investors in this offering may never obtain a return on their investment.

You should not rely on an investment in our common stock to provide dividend income. We do not anticipate that we will pay any dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our existing operations. In addition, any future credit facility we enter into, or debt instrument that we issue, may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

Delaware law and provisions in our amended and restated certificate of incorporation and bylaws might discourage, delay, or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage, delay, or prevent a merger, acquisition, or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our charter documents:

- establish that our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered three year terms;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- provide that our directors may only be removed for cause;
- eliminate cumulative voting;
- authorize our board of directors to issues shares of preferred stock and determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval;
- provide our board of directors with the exclusive right to elect a director to fill a vacancy or newly created directorship;
- permit stockholders to only take actions at a duly called annual or special meeting and not by written consent;
- prohibit stockholders from calling a special meeting of stockholders;

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- require that stockholders give advance notice to nominate directors or submit proposals for consideration at stockholder meetings;
- authorize our board of directors, by a majority vote, to amend the bylaws; and
- require the affirmative vote of at least 66 2/3% or more of the outstanding shares of common stock to amend many of the provisions described above.

In addition, Section 203 of the General Corporation Law of the State of Delaware, or DGCL, prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws, or Delaware law that has the effect of delaying or preventing a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our capital stock and could also affect the price that some investors are willing to pay for our common stock.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for:

- any action asserting a claim of breach of fiduciary duty;
- any action asserting a claim against us arising under the DGCL, our amended and restated certificate of incorporation, or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

The choice of the Court of Chancery of the State of Delaware as the sole and exclusive forum for any derivative action or proceeding brought on behalf of the Corporation shall not apply to suits seeking to enforce a duty or liability created by the Securities Act or the Exchange Act.

In addition, our amended and restated certificate of incorporation provides that the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. There is uncertainty as to whether a court would enforce such provisions. Some companies that adopted a similar federal district court forum selection provision are currently subject to a suit in the Chancery Court of Delaware by stockholders who assert that this provision is not enforceable. If a court were to find either choice of forum provision contained in our amended and restated 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 adversely affect our business and financial condition.

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

We are subject to the periodic reporting requirements of the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act are accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements or insufficient disclosures due to error or fraud may occur and not be detected.

General Risk Factors

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

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. We 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 could decrease. Even if we do obtain analyst coverage, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

Changes in U.S. tax law could adversely affect our business and financial condition.

The laws, rules and regulations dealing with U.S. federal, state, and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect us or holders of our common stock. In recent years, many changes have been made to applicable tax laws and changes are likely to continue to occur in the future.

For example, the Tax Cuts and Jobs Act, or the TCJA, was enacted in 2017 and made significant changes to corporate taxation, including the reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, the limitation of the tax deduction for net interest expense to 30% of adjusted taxable income (except for certain small businesses), the limitation of the deduction for net operating losses from taxable years beginning after December 31, 2017 to 80% of current year taxable income and the elimination of net operating loss carrybacks generated in taxable years ending after December 31, 2017 (though any such net operating losses may be carried forward indefinitely), and the modification or repeal of many business deductions and credits. In addition, on March 27, 2020, then President Trump signed into law the “Coronavirus Aid, Relief, and Economic Security Act” or the CARES Act, which, among other things, suspends the 80% limitation on the deduction for net operating losses arising in taxable years beginning before January 1, 2021, permits a five-year carryback of net operating losses arising in taxable years beginning after December 31, 2017 and before January 1, 2021, and generally modifies the limitation on the deduction for net interest expense to 50% of adjusted taxable income for taxable years beginning in 2019 and 2020.

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

If we engage in acquisitions or strategic partnerships, this may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We may engage in various acquisitions and strategic partnerships in the future, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;

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- the potential issuance of our equity securities which would result in dilution to our stockholders;
- assimilation of operations, intellectual property, products and product candidates of an acquired company, including difficulties associated with integrating new personnel;
- the diversion of our management's attention from our existing product programs and initiatives in pursuing such an acquisition or strategic partnership;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and regulatory approvals; and
- our inability to generate revenue from acquired intellectual property, technology and/or products sufficient to meet our objectives or even to offset the associated transaction and maintenance costs.

In addition, if we undertake such a transaction, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense.

Our business activities may be subject to the Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery and anti-corruption laws.

Our business activities may be subject to the FCPA and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate, including the U.K. Bribery Act. The FCPA generally prohibits offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to a non-U.S. government official in order to influence official action, or otherwise obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. Our business is heavily regulated and therefore involves significant interaction with public officials, including officials of non-U.S. governments. Additionally, in many other countries, the health care providers who prescribe pharmaceuticals are employed by their government, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers are subject to regulation under the FCPA. Recently, the SEC and Department of Justice have increased their FCPA enforcement activities with respect to pharmaceutical companies. There is no certainty that all of our employees, agents, contractors, or collaborators, or those of our affiliates, will comply with all applicable laws and regulations, particularly given the high level of complexity of these laws. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers, or our employees, the closing down of our facilities, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products in one or more countries and could materially damage our reputation, our brand, our international expansion efforts, our ability to attract and retain employees, and our business, prospects, operating results, and financial condition.

Our business is subject to economic, political, regulatory and other risks associated with conducting business internationally.

Our business is subject to risks associated with conducting business internationally because some of our suppliers and collaborative relationships are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular non-U.S. economies and markets;
- differing and changing regulatory requirements in non-U.S. countries;

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- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- difficulties in compliance with non-U.S. laws and regulations;
- changes in non-U.S. regulations and customs, tariffs and trade barriers;
- changes in non-U.S. currency exchange rates and currency controls;
- changes in a specific country's or region's political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or non-U.S. governments;
- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- difficulties associated with staffing and managing international operations, including differing labor relations;
- potential liability under the FCPA or comparable foreign laws; and
- business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods, fire and pandemics such as the ongoing global COVID-19 pandemic.

These and other risks associated with conducting business internationally may materially adversely affect our ability to attain profitable operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” These forward-looking statements involve a number of risks and uncertainties. Many of the following risks are, and will continue to be, exacerbated by the COVID-19 pandemic and any worsening of the global business and economic environment as a result. We caution readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statement. These statements are based on current expectations of future events. Such statements include, but are not limited to, statements about future financial and operating results, plans, objectives, expectations and intentions, costs and expenses, interest rates, outcome of contingencies, financial condition, results of operations, liquidity, cost savings, objectives of management, business strategies, success of competing drugs, financing, potential growth and market opportunities, product candidates, clinical trial timing and plans, clinical and regulatory pathways for our development programs, the achievement of clinical and commercial milestones, the advancement of our technologies and our proprietary, co-developed and partnered products and product candidates, and other statements that are not historical facts.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “would,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- the success, cost and timing of our development activities, preclinical studies and clinical trials;
- the continuation of the coronavirus disease, COVID-19, pandemic which may have a material adverse impact on our business, including our preclinical studies and clinical trials and which could materially affect our operations as well as the business or operations of third parties with whom we conduct business;
- the extent to which any limitations that we are subject to may affect the success of our product candidates;
- the timing or likelihood of regulatory filings and approvals;
- our ability to obtain and maintain regulatory approval of our product candidates, and any related restrictions, limitations and/or warnings in the label of any approved product candidate;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;
- the terms and conditions of licenses granted to us and our ability to license additional intellectual property relating to our product candidates and other technologies;
- our need and ability to raise additional capital and obtain funding for our operations, including funding necessary to develop and commercialize our product candidates;
- our ability to successfully commercialize our product candidates;
- our plans and ability to establish sales, marketing and distribution infrastructure to commercialize any product candidates for which we obtain approval;
- future agreements with third parties in connection with the commercialization of our product candidates;
- the size and growth potential of the markets for our product candidates, if approved for commercial use, and our ability to serve those markets;
- the rate and degree of market acceptance of our product candidates;

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- potential claims relating to our intellectual property and third party intellectual property;
- our ability to contract with third party suppliers and manufacturers and their ability to perform adequately;
- our dependence on a small number of suppliers for manufacturing our products, in particular third party manufacturers from China;
- the pricing and reimbursement of our product candidates, if approved;
- the success of competing products or prodrug technologies that are or may become available;
- our ability to attract and retain key managerial, scientific and medical personnel;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- potential insufficiency of our disclosure controls and procedures to detect errors or acts of fraud;
- our financial performance;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act; and
- our anticipated use of the proceeds from this offering.

We have based these forward-looking statements largely on our current expectations and projections about our business, the industry in which we operate, and financial trends that we believe may affect our business, prospects, financial condition and results of operations, and these forward-looking statements are not guarantees of future performance or development. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described in the section titled “Risk Factors” and elsewhere in this prospectus. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

All subsequent written or oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events, except as may be required under applicable law. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

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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. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

MARKET, INDUSTRY AND OTHER DATA

This prospectus contains estimates, projections and other information concerning our industry, our business and the markets for our product candidates. We obtained the industry, market and similar data set forth in this prospectus from our own internal estimates and research and from academic and industry research, publications, surveys and studies conducted by third parties, including governmental agencies. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. While we believe that the data we use from third parties is reliable, we have not separately verified these data. Although we are responsible for all of the disclosure contained in this prospectus and we believe the information from third party sources included in this prospectus is reliable, such information is inherently imprecise. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section titled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us. Further, while we believe our internal research is reliable, such research has not been verified by any third party. You are cautioned not to give undue weight to any such information, projections and estimates.

In some cases, we do not expressly refer to the sources from which data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

The sources of industry and market data contained in this prospectus primarily include those listed below:

1. S. Brahmachari, et al., “Activation of tyrosine kinase-Abl contributes to α -synuclein-induced neurodegeneration.” *J. Clin. Invest.*, 126: 2970-88 (2016).
2. X. Mao, et al., “Pathological α -synuclein transmission initiated by binding lymphocyte-activation gene 3.” *Science*, 353 (2016).
3. The Michael J. Fox Foundation website (www.michaeljfox.org).
4. The Cure Parkinson’s Trust website (www.cureparkinsons.org.uk).
5. Parkinson’s Disease Foundation (www.pdf.org), Decisions Resources 2016 Parkinson’s Report.
6. Jones J.D., et al., “Health comorbidities and cognition in 1948 patients with idiopathic Parkinson’s Disease.” *Parkinsonism and Related Disorders*, 18:1073-1078 (2012).
7. Wright Willis, et al., “Geographic and ethnic variation in Parkinson Disease: a population-based study of US Medicare beneficiaries.” *Neuroepidemiology*, 34:143-151 (2012).
8. de Rijk, et al., “Prevalence of parkinsonism and Parkinson’s Disease in Europe: the EUROPARKINSON Collaborative Study. European Community Concerted Action on the Epidemiology of Parkinson’s Disease.” *J Neurol Neurosurg Psychiatry*, 62:10-5 (1997).
9. Ying Zhao, et al., “Progression of Parkinson’s Disease as Evaluated by Hoehn and Yahr Stage Transition Times.” *Movement Disorders* 25:710-716 (2010).

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$41.5 million, based on an assumed offering price of \$5.65 and gross proceeds of \$45.2 million after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the representative of the underwriters exercises its over-allotment option in full, we estimate that our net proceeds will be approximately \$47.8 million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A \$1.00 increase (decrease) in the assumed public offering price of \$5.65 per share (the closing price of our common stock as quoted on the Nasdaq Capital Market on June 7, 2021) would increase (decrease) the aggregate net proceeds to us from this offering by approximately \$7.4 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 underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 500,000 shares in the number of shares offered by us would increase (decrease) the net proceeds to us from this offering by approximately \$2.6 million, assuming that the assumed public offering price remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We currently anticipate that we will use the net proceeds from this offering as follows:

- approximately \$1.2 million to fund the costs of our Phase 1b extension study for IKT-148009 in Parkinson's patients and to validate target engagement markers in the central and peripheral nervous system;
- approximately \$6.0 million to fund production of up to 100 kg of IKT-148009 for Phase 1b and Phase 2 clinical studies;
- approximately \$25 million to fund a Phase 2 efficacy trial of IKT-148009 in Parkinson's patients;
- approximately \$2 million to fund the clinical dose calibration study of IKT-001Pro in healthy subjects;
- approximately \$2 million to fund drug product production for IKT-001Pro;
- approximately \$5.3 million to fund general research and development activities, medicinal chemistry for additional molecules and IND-enabling studies, team building, working capital and other general corporate activities.

Pending these uses, we intend to invest the funds in short-term, investment grade, interest-bearing securities. It is possible that, pending their use, we may invest the net proceeds in a way that does not yield a favorable, or any, return for us.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot currently allocate specific percentages of the net proceeds that we may use for the purposes specified above, and we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to obtain additional financing. We may find it necessary or advisable to use the net proceeds for other purposes, and our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds from this offering. See "Risk Factors" for a discussion of certain risks that may affect our intended use of the net proceeds from this offering.

MARKET PRICE OF OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

Our common stock is listed on the Nasdaq Capital Market under the symbol “IKT.” A description of the common stock that we are issuing in this offering is set forth under the heading “Description of Capital Stock” beginning on page 169 of this prospectus.

The last reported sale price for our common stock on June 7, 2021 was \$5.65 per share.

Holders

As of June 7, 2021, we had 31 record holders of our common stock and no preferred stock issued and outstanding. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock is American Stock Transfer & Trust Company. The transfer agent and registrar’s address is 6201 15th Ave, Brooklyn, NY 11219.

Dividend Policy

We have not declared or paid any cash dividends on our capital stock since our inception. We intend to retain future earnings, if any, to finance the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Payment of future cash dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, the requirements and contractual restrictions of then-existing debt instruments and other factors that our board of directors deems relevant.

CAPITALIZATION

The following table sets forth our cash and capitalization as of March 31, 2021, as follows:

- on an actual basis; and
- on an as adjusted basis to give further effect to our issuance and sale of 8,000,000 shares of our common stock in this offering at the assumed public offering price of \$5.65 per share (the closing price of our common stock as quoted on the Nasdaq Capital Market on June 7, 2021), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, totaling \$3.75 million, and after the May 2021 issuance of 73,496 net shares of our common stock in connection with the exercise of stock options to purchase 90,414 shares of our common stock and receipt of \$34,357 upon such exercise.

The as adjusted information below is illustrative only, and our capitalization following the closing of this offering will change based on the actual 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 elsewhere in this prospectus and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” that are included elsewhere in this prospectus by us.

	March 31, 2021	
	Actual	As Adjusted ⁽¹⁾
Cash	\$ 9,609,631	\$ 51,093,988
Notes payable	1,243,700	1,243,700
Stockholder’s equity	8,036,571	49,520,928
Common stock, par value \$0.001 per share; 100,000,000 shares authorized; 10,059,849 shares issued and outstanding, actual; 100,000,000 shares authorized, 18,133,345 shares issued and outstanding, as adjusted	10,060	18,133
Additional paid-in capital	25,695,203	67,171,487
Accumulated deficit	(17,668,692)	(17,668,692)
Total stockholders’ equity	\$ 8,036,571	\$ 49,520,928
Total capitalization	\$ 9,280,271	\$ 50,764,628
Total liabilities and stockholders equity	\$ 11,874,035	\$ 53,355,609

- (1) The as adjusted balance sheet data in the table above reflects the sale and issuance by us of shares of our common stock in this offering, at the assumed public offering price of \$5.65 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, totaling \$3.75 million, and after the May 2021 issuance of 73,496 net shares of our common stock in connection with the exercise of stock options to purchase 90,414 shares of our common stock and receipt of \$34,357 upon such exercise.

Each \$1.00 increase (decrease) in the assumed offering price of \$5.65 per share (the closing price of our common stock as quoted on the Nasdaq Capital Market on June 7, 2021), would increase (decrease) our as adjusted cash, additional paid-in capital, total stockholders’ equity (deficit) and total capitalization by approximately \$7.4 million, assuming the number of shares offered by us, as set forth on the cover page of this offering remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Each increase (decrease) of 500,000 shares in the number of shares of common stock offered by us would increase (decrease) our as adjusted cash, additional paid-in capital, total stockholders’ equity (deficit) and total capitalization by approximately \$2.6 million, assuming the assumed offering price of \$5.65 per share (the closing price of our common stock as quoted on the Nasdaq Capital Market on June 7, 2021), remains

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the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

The number of shares of common stock that will be outstanding after this offering is based on 10,059,849 shares of common stock outstanding as of March 31, 2021, and excludes the following:

- 3,665,072 shares of common stock issuable upon exercise of options to purchase shares of common stock outstanding as of March 31, 2021, with a weighted-average exercise price of \$2.38 per share, which includes 90,414 incentive stock options which were exercised in May 2021 with an exercise price of \$0.38 per share;
- 721,913 shares of common stock issuable upon exercise of warrants to purchase shares of common stock outstanding as of March 31, 2021, with a weighted-average exercise price of \$5.83 per share; and
- As of March 31, 2021, 8,354,072 shares of common stock reserved for future issuance under our 2020 Equity Incentive Plan, or 2020 Plan, which became effective upon the closing of the Company's December 2020 initial public offering.

DILUTION

If you invest in our common stock, your interest in our common stock will be diluted immediately to the extent of the difference between the public offering price and the adjusted net tangible book value per share of our common stock after this offering. Net tangible book value on March 31, 2021 was \$8,033,788, or \$0.80 per share. “Net tangible book value” is total assets minus the sum of liabilities and intangible assets. “Net tangible book value per share” is net tangible book value divided by the total number of shares outstanding.

After giving effect to the sale by us in this offering of 8,000,000 shares of common stock at an assumed public offering price of \$5.65 per share (the closing price of our common stock as quoted on the Nasdaq Capital Market on June 7, 2021), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses that we will pay, and after the May 2021 issuance of 73,496 shares of our common stock in connection with the exercise of stock options to purchase 90,414 shares of our common stock and receipt of \$34,357 upon such exercise, our as adjusted net tangible book value as of March 31, 2021 would have been approximately \$49.5 million, or \$2.73 per share of common stock. This amount represents an immediate increase in net tangible book value of \$1.93 per share to existing stockholders and an immediate dilution of \$2.92 per share to purchasers in this offering.

The following table illustrates this dilution on a per share basis:

Assumed public offering price per share	\$5.65
Net tangible book value per share as of March 31, 2021	\$0.80
Increase in net tangible book value per share attributable to new investors purchasing shares in this offering	\$1.93
As adjusted net tangible book value per share after this offering	\$2.73
Dilution per share to new investors purchasing shares in this offering	\$2.92

A \$1.00 increase or decrease in the assumed public offering price of our common stock would increase or decrease our as adjusted net tangible book value per share after this offering by \$0.41, assuming the number of shares of common stock offered by us remains the same and after deducting the estimated underwriting discounts and commissions. Similarly, each aggregate increase or decrease of 500,000 shares of common stock would increase or decrease the dilution to new investors by \$0.07 per share, assuming that the assumed public offering price of shares of common stock remains the same and after deducting the estimated underwriting discounts and commissions.

If the representative of the underwriters exercises its option to purchase 1,200,000 additional shares of common stock in this offering in full at the assumed public offering price of \$5.65 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, the net tangible book value per share after this offering would be \$2.89 per share, and the dilution in net tangible book value per share to new investors purchasing common stock in this offering would be \$2.76 per share.

The foregoing table and calculations are based on 10,059,849 shares of common stock outstanding as of March 31, 2021, and excludes the following:

- 3,665,072 shares of common stock issuable upon exercise of options to purchase shares of common stock outstanding as of March 31, 2021, with a weighted-average exercise price of \$2.38 per share, which includes 90,414 incentive stock options which were exercised in May 2021 with an exercise price of \$0.38 per share;
- 721,913 shares of common stock issuable upon exercise of warrants to purchase shares of common stock outstanding as of March 31, 2021, with a weighted-average exercise price of \$5.83 per share; and

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- As of March 31, 2021, 8,354,072 shares of common stock reserved for future issuance under our 2020 Equity Incentive Plan, or 2020 Plan, which became effective upon the closing of the Company's initial public offering.

The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at pricing. In addition, the information discussed above assumes no exercise of the over-allotment option.

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 our financial statements and the related notes to those statements included elsewhere in this prospectus. This discussion and analysis and other parts of this prospectus contain forward-looking statements based upon current beliefs, plans and expectations related to future events and our future financial performance that involve risks, uncertainties and assumptions, such as statements regarding our intentions, plans, objectives, expectations, forecasts and projections. Our actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those set forth under the section titled "Risk Factors" and elsewhere in this prospectus. You should carefully read the "Risk Factors" to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section titled "Special Note Regarding Forward-Looking Statements."

Overview

We are a clinical stage pharmaceutical company developing therapeutics for Parkinson's Disease, or PD, and related disorders that arise inside and outside of the brain. In 2021, we commenced clinical development of IkT-148009, a small molecule Abelson Tyrosine Kinase inhibitor we believe can modify the course of Parkinson's disease and its manifestation in the gastrointestinal tract, or GI. Results to date of our ongoing Phase 1 Single and Multiple Ascending Dose escalation study (SAD and MAD, respectively) in older and elderly healthy volunteers have revealed important insights into the pharmacology of IkT-148009 in human subjects. We anticipate enrolling up to 112 subjects in the Phase 1 study. To date, 40 subjects have received IkT-148009. Results from the Phase 1 study have shown that IkT-148009 has a half-life of greater than 24 hours, and just a 25 mg once daily oral dose reached exposures that are consistent with the exposure to IkT-148009 that resulted in therapeutic efficacy in animal models of progressive Parkinson's disease. This has led to an acceleration of the clinical development program by more than 6 months. Subject to discussions with the FDA, we plan to initiate dosing in a Parkinson's patient population as part of the Phase 1 MAD study. Clinical development of IkT-148009 for the GI complications in PD patients will cross-reference the Phase 1 Study of IkT-148009 for the treatment of PD. In support of our clinical development program, we have now completed 3 months of our chronic toxicology program of IkT-148009 in both rat and monkey. These toxicology studies will continue for 3 additional months in rat and 6 additional months in monkey. We have also advanced clinical batch manufacturing and pill formulation for our platform prodrug technology involving IkT-001Pro.

Our programs utilize small molecule, oral protein kinase inhibitors to treat PD and its GI complications. We have shown in animal models of progressive disease that IkT-148009 is a brain penetrant Abelson tyrosine kinase, or c-Abl, inhibitor that halts disease progression and reverses functional loss in the brain and reverses neurological dysfunction in the GI tract. The ability to halt progression and restore function was shown in animal models of progressive disease that mimic the rate of disease progression and the extent of functional loss in the brain and/or the GI tract as found in patients with PD. We believe our therapeutic approach is disease-modifying. Our understanding of how and why PD progresses has led us to believe that functional loss in Parkinson's patients may be at least partially reversed. Based on the measurements in animal models, we believe patients treated with IkT-148009 may have their disease progression slowed or halted, we may see a progressive reduction in the need for symptomatic or supportive therapy and/or we may ultimately eliminate the need for symptomatic therapy. However, it is unknown whether the disease modification seen in the animal models will occur in the human disease following treatment with IkT-148009.

In our opinion, the multi-decade failures in the treatment of neurodegenerative diseases such as PD result from a lack of understanding of the biochemistry of the disease processes involved. Neurodegeneration is marked by a progressive degeneration and loss of function of neurons which send and receive signals to and from the brain. Historically, the cause of a neurodegenerative disease was thought to be a "plaque" made up of a misfolded and/or aggregated protein(s). Therapeutic approaches, therefore, sought to remove "plaque" from the brain. A "plaque"-focused treatment strategy has failed to alter the course of Parkinson's disease in two Phase 2

trials that reported results in 2020 and 2021. We believe we are different. We identified the proteins that become dysfunctional in a disease pathway and sought to understand how a dysfunctional protein causes disease. We believe our approach to PD and other neurological diseases has identified the underlying cause of disease and led to an understanding of how individual proteins are linked together to define the disease process. Using this strategy, we believe we have discovered at least one enzyme that plays a pivotal role in the disease process for PD, the Abelson Tyrosin Kinase c-Abl. We have developed novel protein kinase inhibitors against c-Abl, which we believe can alter the disease course for PD. c-Abl chemically modifies one of the “plaque” proteins in PD, known as alpha-synuclein. Chemical modification creates what we believe to be the true toxic entity of the disease. Treatment with IKT-148009 may prevent chemical modification and, at least in animal models of progressive disease, leads to clearance of the toxic form of alpha-synuclein from the affected neurons.

In addition to programs in PD, our platform drug discovery and delivery technologies have identified additional opportunities, including a potential treatment for bacterial or viral infections in the brain using a single agent at fixed dose, and an oncology opportunity in stable-phase Chronic Myelogenous Leukemia, or CML. Our product for CML, IKT-001Pro, is a prodrug of the anticancer agent Imatinib. A prodrug is a compound that, after administration, is metabolized by the body into a pharmacologically active drug. Imatinib is an FDA designated Orphan Drug and is the standard-of-care treatment for stable-phase CML. In the United States, orphan drug designation entitles a party to incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. We intend to submit an IND to initiate clinical development for IKT-001Pro in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design and execution of the clinical development program and additional funding, we believe that clinical development of IKT-001Pro could possibly be completed in 2022. We intend to submit a new drug application, or NDA, for IKT-001Pro pursuant to Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which specifies the requirements for approval. This pathway would allow us to rely, in part, on data in the public domain or the FDA’s prior conclusions regarding the safety and effectiveness of an approved compound. Consistent with FDA guidance on the 505(b)(2) pathway, we will seek input from the FDA as to what should be included in the application prior to submission of the 505(b)(2) application. Pursuit of this oncology opportunity will seek to validate the pharmacology advantage of our prodrug technology in a well understood patient population with an approved drug substance. If we are able to validate IKT-001Pro in oncology, we will evaluate whether the pharmacology advantages we discover about IKT-001Pro could be applied to novel drug substances, such as IKT-148009.

We believe we are one of the pioneers of the application of protein kinase inhibitors to non-oncology indications, including neurodegeneration and infectious diseases, as well as their more traditional role in the treatment of cancer. As of the date of this prospectus, more than 50% of the Company’s total funding has been received from Private, State and Federal granting agencies, including the National Institutes of Health, the Department of Defense and the Michael J. Fox Foundation, with the balance the result of equity sales in the private and public sectors. Private, State and Federal granting agencies use extensive scientific peer review in deciding which projects to fund that could impact human disease. Our ability to advance the Company on the basis of scientific peer review reflects the potential our scientific peers see for the possible success of our therapeutic programs.

The development of our product candidates could be disrupted and materially adversely affected in the future by a pandemic, epidemic or outbreak of an infectious disease like the recent outbreak of COVID-19. For example, as a result of measures imposed by the governments in regions affected by COVID-19, businesses and schools have been suspended due to quarantines or “stay at home” orders intended to contain this outbreak. COVID-19 continues to spread globally and, as of April 2020, has spread to over 150 countries, including the United States. International stock markets continue to reflect the uncertainty associated with the slow-down in the world economies and the reduced levels of international travel experienced since the beginning of January 2020. As of the date of this prospectus, the COVID-19 pandemic has had an impact upon our operations, although we believe that impact is not material. We are still assessing our business plans and the impact COVID-19 may have on our ability to advance the development of our product candidates or to raise financing to support the development of our product candidates, but no assurances can be given that this analysis will enable us to avoid part or all of any impact from the spread of COVID-19 or its consequences, including downturns in business.

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sentiment generally or in our sector in particular. The spread of an infectious disease, including COVID-19, may also result in the inability of our suppliers to deliver components or raw materials on a timely basis or materially and adversely affect our collaborators' and potential strategic partners' ability to perform preclinical studies and clinical trials. See "Risk Factors — *The recent and ongoing COVID-19 pandemic could materially affect our operations, as well as the business or operations of third parties with whom we conduct business. Our business could be adversely affected by the effects of other future health epidemics or pandemics in regions where we or third parties on which we rely have significant business operations*" for a more detailed presentation of risks associated with the COVID-19 pandemic.

On May 4, 2020, the Company issued a promissory note (the "PPP Note") in the principal amount of \$27,550 to Bank of America in connection with a loan in such amount made by Bank of America under the Payroll Protection Program (the "PPP Act") administered by the United States Small Business Administration (the "SBA") under provisions of the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"). The PPP Note bears interest at a rate of 1% per annum. The PPP Note is payable over a five-year term commencing six months from the date of the PPP Note. The CARES Act provides that all or a portion of the PPP Note may be forgiven if the Company complies with the requirements of the PPP, including utilizing the proceeds of the PPP Note only for permitted purposes, such as payroll costs. The Small Business Administration notified us that they have forgiven the loan in its entirety as of March, 2021.

Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements for the year ended December 31, 2020 included in this prospectus. In addition, there is substantial doubt regarding our ability to continue as a going concern for a period of one year after the date the financial statements included in this prospectus were issued.

Our Programs

Our portfolio is focused on developing protein kinase inhibitors to treat PD in the brain and GI tract that arise from dysfunctional alpha-synuclein in PD patients. Using IkT-148009, we intend to clinically evaluate the impact of c-Abl inhibition on newly diagnosed PD patients, patients early in the course of PD, and PD patients with GI complications. We are pursuing clinical development using a sequential Phase 1/ Phase 2 development approach, with the details of the Phase 2 studies subject to agreements with the FDA regarding trial design and the outcome of the Phase 1 clinical trial. The Phase 1/Phase 2 development program, subject to FDA approval, would be followed with one or more Phase 3 clinical trials that we believe could lead to completion of the clinical development program in 2023 or 2024. IkT-148009 is intended to treat PD in treatment-naïve and early-stage PD patients, along with GI complications such as difficulty in swallowing, or dysphagia, and for treatment of neurogenic constipation.

We have also developed an alternate delivery approach for oral kinase inhibitors by converting them into prodrugs. We developed IkT-001Pro to alter the way a protein kinase inhibitor is absorbed in the GI tract and to address certain side effects of Imatinib-therapy in blood and stomach cancers. We believe demonstrating the benefits of this technology in a well-known patient population will validate the utility of our prodrug technology. We plan to submit an IND for IkT-001Pro in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design, positive clinical results and additional funding, we believe that clinical development could possibly be completed in 2022. Approval of IkT-001Pro would be sought pursuant to the FDA's 505(b)(2) pathway. If approved by the FDA, we would seek to partner this program with a pharmaceutical company to produce and market IkT-001Pro to the CML treatment community. Depending on the terms of the partnership, we may realize some revenue from this partnership that could financially contribute to our primary efforts in neurodegenerative diseases. Primary research with payors suggests an accessible market exists for IkT-001Pro in stable-phase CML patients. Successful validation of our prodrug approach in IkT-001Pro will potentially enable extension of this technology to other development programs, including IkT-148009.

Additional research programs will seek to develop medications for other alpha-synuclein-related diseases, specifically Dementia with Lewy Body, or DLB, and Multiple System Atrophy, or MSA, as well as our programs

in anti-infectives that target host-factors to block viral or bacterial infections in the brain with a single agent at fixed dose. Our first application intends to treat infectious disease by suppressing John Cunningham virus, or JCV, virus infection, the cause of Progressive Multifocal Leukoencephalopathy, or PML.

Components of Operating Results

Operating Expenses

Research and Development

Research and development activities account for a significant portion of our operating expenses. Research and development expenses accounted for 25% and 37% of our operating expenses for the years ended December 31, 2020 and 2019, respectively and 60% and 35% for the three months ended March 31, 2021 and 2020, respectively. We record research and development expenses as incurred. Research and development expenses incurred by us for the discovery and development of our product candidates and prodrug technologies include:

- external research and development expenses, including: expenses incurred under arrangements with third parties, such as CROs, preclinical testing organizations, clinical testing organizations, CMOs, academic and non-profit institutions and consultants;
- fees related to our license and collaboration agreements;
- personnel related expenses, including salaries, benefits and non-cash stock-based compensation expense; and
- other expenses, which include direct and allocated expenses for laboratory, facilities and other costs.

A portion of our research and development expenses are direct external expenses, which we track on a program-specific basis from inception of the program.

Program expenses include expenses associated with our most advanced product candidates and the discovery and development of compounds that are potential future candidates. We also track external expenses associated with our third-party research and development efforts. All external costs are tracked by therapeutic indication. We do not track personnel or other operating expenses incurred for our research and development programs on a program-specific basis. These expenses primarily relate to salaries and benefits and stock-based compensation and office consumables.

At this time, we can only estimate the nature, timing and costs of the efforts that will be necessary to complete the development of, and obtain regulatory approval for, any of our product candidates. We are also unable to predict when, if ever, material net cash inflows will commence from sales or licensing of our product candidates. This is due to the numerous risks and uncertainties associated with drug development, including the uncertainty of:

- our ability to add and retain key research and development personnel and other key employees;
- our ability to successfully file IND and NDA applications with the FDA;
- our ability to conduct and commence trials;
- our ability to establish an appropriate safety profile with IND-enabling toxicology studies;
- our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize, our product candidates;
- our successful enrollment in and completion of our current and future clinical trials;
- the costs associated with the development of any additional product candidates we identify in-house or acquire through collaborations;
- our ability to discover, develop and utilize biomarkers to demonstrate target engagement, pathway engagement and the impact on disease progression of our molecules;
- our ability to establish agreements with third party manufacturers for clinical supply for any future clinical trials and commercial manufacturing, if our product candidates are approved;

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- the terms and timing of any collaboration, license or other arrangement, including the terms and timing of any milestone payments thereunder;
- our ability to obtain and maintain patent, trade secret and other intellectual property protection and regulatory exclusivity for our product candidates if and when approved;
- our receipt of marketing approvals from applicable regulatory authorities;
- the impact of the novel coronavirus disease, COVID-19, pandemic which has had an adverse impact on our business, including our preclinical studies and clinical trials;
- our ability to commercialize products, if and when approved, whether alone or in collaboration with others; and
- the continued acceptable safety profiles of the product candidates following approval.

A change in any of these variables with respect to the development of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate. We expect our research and development expenses to increase for the next several years as we continue to implement our business strategy, advance our current programs, expand our research and development efforts, seek regulatory approvals for any product candidates that successfully complete clinical trials, access and develop additional product candidates and incur expenses associated with hiring additional personnel to support our research and development efforts. In addition, product candidates in later stages of clinical development generally incur higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials.

Selling, General and Administrative

Selling, general and administrative expenses include personnel related expenses, such as salaries, benefits, travel and non-cash stock-based compensation expense, expenses for outside professional services and allocated expenses. Outside professional services consist of legal, accounting and audit services and other consulting fees. Allocated expenses consist of rent expenses related to our offices in Cambridge, Massachusetts and Atlanta, Georgia not otherwise included in research and development expenses.

We expect to incur additional expenses as compared to when we were a private company, including expenses related to compliance with the rules and regulations of the SEC and those of any national securities exchange on which our securities are traded, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase our administrative headcount when operating as a public company and as we advance our product candidates through clinical development, which will also likely require us to increase our selling, general and administrative expenses.

Results of Operations

Comparison of the Three Months Ended March 31, 2021 and 2020

The following table sets forth the significant components of our results of operations:

	Three Months Ended March 31,		Change	
	2021	2020	(\$)	(%)
Grant revenue	\$ 1,407,165	\$ 270,787	\$ 1,136,378	419.7
Research and development	(2,431,860)	(283,114)	(2,148,746)	759.0
Selling, general and administrative	(1,600,576)	(527,688)	(1,072,888)	203.3
Loss from operations	(2,625,271)	(540,015)	(2,085,256)	(386.1)
Interest expense, net	(11,797)	(7,425)	(4,372)	58.9
Net loss	<u>\$ (2,637,068)</u>	<u>\$ (547,440)</u>	<u>\$ (2,089,628)</u>	<u>(381.7)</u>

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Grant Revenue

Grant revenue for the three months ended March 31, 2021, increased by \$1,136,378 or 419.7% to \$1,407,165 from \$270,787 in the prior year comparable period. The increase was driven by increased grant research activity during 2021 compared to 2020. During 2020, the Company's focus was shifted toward advancing its Phase I clinical trials which did not result in grant revenue. The Company is utilizing its increased resources in 2021 to carry on its Phase I clinical trials in addition to its grant research activity.

Research and Development

Research and development expenses increased by \$2,148,746 or 759% to \$2,431,860 from \$283,114 in the prior year comparable period. The increase was driven by a \$1.1 million increase in grant related research expenditures and a \$0.8 million increase in non-grant related research. The non-grant related research was expended primarily in connection with the Company's Phase I PD clinical trials.

Selling, General and Administrative

Selling, general and administrative expenses increased by \$1,072,888 or 203.3% to \$1,600,576 from \$527,688 in the prior year comparable period. The increase was primarily the result of increased non-cash stock compensation expense of \$0.5 million, increased director and officer's liability insurance of \$0.4 million related to the Company's initial public offering in December 2020, increased legal fees, board fees, investor relation and consulting fees of \$0.3 million relating to operating as a public company registrant since December 2020 and a net increase of \$0.1 million for other normal operating expenses.

Interest Expense

Interest expense increased by \$4,372 or 58.9% to \$11,797 from \$7,425 in the prior year comparable period. The increase was driven by financing of insurance premiums during the three months ended March 31, 2021. The Company experienced normal but significant increases in insurance premiums during the first three months of 2021 after its December 31, 2020 initial public offering. In the prior year comparable period insurance premiums were not financed.

Liquidity and Capital Resources

Sources of Liquidity

From our inception through March 31, 2021, we have funded our operations primarily through private, state and federal contracts and grants. From our inception through March 31, 2021, we generated aggregate cash proceeds of approximately \$20.4 million from private, state and federal contracts and grants, \$1.4 million in equity sales of unregistered common stock and \$14.6 million in net proceeds from our December 2020 initial public offering.

At March 31, 2021, the Company had working capital of \$8,282,699, an accumulated deficit of \$17,668,692, cash of \$9,609,631, accounts payable and accrued expenses of \$1,342,415 and \$994,789 of short-term notes payable. The Company had active grants in the amount of \$1,546,730, of which \$772,420 remained available in accounts held by the U.S. Treasury as of April 30, 2021.

Cash Flows

The following table sets forth a summary of the primary sources and uses of cash for each of the periods presented below:

	Three Months Ended	
	2021	2020
Net cash used in operating activities	\$ (3,934,220)	\$ (255,432)
Net cash provided by (used in) financing activities . .	(409,662)	250,120
Net decrease in cash	<u>\$ (4,343,882)</u>	<u>\$ (5,312)</u>

Net Cash Flows Used in Operating Activities

Net cash flows used in operating activities for the three months ended March 31, 2021, totaled \$3,934,220, and consisted primarily of a net loss of \$2,637,068 adjusted for non-cash stock compensation of \$591,124, non-cash warrant expense of \$237,768, non-cash consulting fees of \$60,391, non-cash PPP loan forgiveness of \$27,550, a decrease of \$61,682 in prepaid research and development, an increase in prepaid expenses and other assets of \$200,581, a decrease in accrued expenses and other current liabilities of \$5,535, a decrease in accounts payable of \$1,008,447 and a decrease in deferred revenue of \$1,074,392 and an increase in grants receivable of \$332,774.

Net cash flows used in operating activities for the three months ended March 31, 2020, totaled \$255,432, and consisted primarily of a net loss of \$547,440 adjusted for non-cash stock compensation of \$139,758, non-cash warrant expense of \$190,993, non-cash consulting fees of \$37,500, a decrease in prepaid expenses of \$3,043, a decrease in accounts payable of \$255,922, an increase in accrued expenses of \$133,684, and an increase in deferred revenue of \$42,952.

Cash Provided by (Used in) Financing Activities

Net cash flows used in financing activities for the three months ended March 31, 2021, totaled \$409,662, which represented repayments of notes payable.

Net cash flows provided by financing activities for the three months ended March 31, 2020, totaled \$250,120, which consisted of proceeds of \$245,250 from the issuance of note payable and \$4,870 from the issuance of common stock.

Future Funding Requirements

To date, we have not generated any revenue from the sale of commercial products. We do not expect to generate any significant revenue from product sales unless and until we obtain regulatory approval of and successfully commercialize any of our product candidates and we do not know when, or if, this will occur. We expect to continue to incur significant losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory approvals for, our product candidates, and begin to commercialize any future approved products. We are subject to all of the risks typically related to the development of new product candidates, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. Moreover, following the completion of the December 2020 initial public offering, we are incurring additional costs associated with operating as a public company. We anticipate that we will need substantial additional funding in connection with our continuing operations.

Until we can generate a sufficient amount of revenue from the commercialization of our product candidates, if ever, we expect to finance our incremental cash needs through a combination of equity offerings, debt financings, working capital lines of credit, grant funding and potential licenses and collaboration agreements. Additional working capital may not be available on commercially reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, reduce or discontinue the development or commercialization of one or more of our product candidates. If we raise additional funds through the issuance of additional debt or equity securities, it could result in dilution to our existing stockholders, increased fixed payment obligations and the existence of securities with rights that may be senior to those of our common stock. If we incur indebtedness, we could become subject to covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Additionally, any future collaborations we enter into with third parties may provide capital in the near term but limit our potential cash flow and revenue in the future. Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

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Since our inception, we have incurred significant losses and negative cash flows from operations. We have an accumulated deficit of \$17,668,692 at March 31, 2021. We expect to incur substantial additional losses in the future as we conduct and expand our research and development activities.

We may seek to fund our operations through public equity or private equity or debt financings, as well as other sources. However, we may be unable to raise additional working capital, or if we are able to raise additional working capital we may be unable to do so on commercially favorable terms. Our failure to raise capital or enter into such other arrangements if and when needed would have a negative impact on our business, results of operations and financial condition and our ability to continue to develop our product candidates.

The Company had working capital of \$8,282,699 at March 31, 2021 and active grants in the amount of \$1,546,730, of which \$772,420 remained available in accounts held by the U.S. Treasury as of April 30, 2021. The Company intends to raise additional working capital in order to carry on its operations and current clinical trials through the date that is 12 months from the filing of this prospectus. However, as certain elements of the Company's operating plan are outside of the Company's control, including the receipt of anticipated future grants and funding from a future capital raise, they cannot be considered probable. If the Company does not receive additional working capital from future anticipated grants and future anticipated capital raises, its operating plan will be limited in scope to operating at its pre-IPO levels which were limited to basic research and development but excluded current and planned future clinical trials.

These conditions raise substantial doubt regarding our ability to continue as a going concern for a period of one year after the date the financial statements included in this prospectus are issued. Our management's plans to alleviate the conditions that raise substantial doubt include suspending or delaying certain research projects and capital expenditures and eliminating certain future operating expenses in order to fund operations at reduced levels for us to continue as a going concern for a period of 12 months from the date the financial statements included in this prospectus are issued.

The accompanying 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 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 the uncertainties described above.

The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. However, we have based these estimates on assumptions that may prove to be wrong, and we could deplete our working capital sooner than planned.

The timing and amount of our operating expenditures will depend largely on:

- the timing and progress of preclinical and clinical development activities;
- the number and scope of preclinical and clinical programs we decide to pursue;
- possible delays or interruptions to preclinical studies, clinical trials, our receipt of services from our third-party service providers on whom we rely, or our supply chain due to the COVID-19 pandemic;
- the progress of the development efforts of third parties with whom we have entered into license and collaboration agreements;
- our ability to maintain our current research and development programs and to establish new research and development, license or collaboration arrangements;
- our ability and success in securing manufacturing relationships with third parties or, in the future, in establishing and operating a manufacturing facility;
- the costs involved in prosecuting, defending and enforcing patent claims and other intellectual property claims;

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- the cost and timing of regulatory approvals;
- our efforts to enhance operational, financial and information management systems and hire additional personnel, including personnel to support development of our product candidates; and
- the costs and ongoing investments to in-license and/or acquire additional technologies.

A change in the outcome of any of these or other variables with respect to the development of any of our product candidates could significantly change the costs and timing associated with the development of that product candidate. Furthermore, our operating plans may change in the future, and we may need additional funds to meet operational needs and capital requirements associated with such operating plans.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements.

Contractual Obligations and Commitments

In June 2018, the Company entered into a one-year, non-cancelable operating lease for space in Boston, Massachusetts. The total lease obligation was \$54,000, payable in 12 equal monthly installments commencing August 1, 2018. Since the end of the one-year initial term on July 31, 2019, the lease continues on a month-to-month basis.

Critical Accounting Policies and Significant Judgments and Estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States, or US GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience 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. Actual results may differ from these estimates under different assumptions or conditions. While our significant accounting policies are described in more detail in the notes to our financial statements included elsewhere in this prospectus, we believe that the following accounting policies are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Research and Development Expenses

We record research and development expenses to operations as incurred. Research and development expenses represent costs incurred by us for the discovery and development of our product candidates and the development of our RAMP™ drug discovery program and prodrug technologies and include: employee-related expenses, such as salaries, benefits, travel and non-cash stock-based compensation expense; external research and development expenses incurred under arrangements with third parties, such as CROs, preclinical testing organizations, clinical testing organizations, CMOs, academic and non-profit institutions and consultants; costs to acquire technologies to be used in research and development that have not reached technological feasibility and have no alternative future use; license fees; and other expenses, which include direct and allocated expenses for laboratory, facilities and other costs.

As part of the process of preparing financial statements, we are required to estimate and accrue expenses. A portion of our research and development expenses are external costs, which we track on a program-specific basis. We record the estimated expenses of research and development activities conducted by third-party service

providers as they are incurred and provided within research and development expense in the statements of operations. These services include the conduct of preclinical studies and consulting services. These costs are a significant component of our research and development expenses.

Costs for research and development activities are recognized based on costs incurred. We make significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, we adjust our accrued estimates. 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 may vary from our estimates and could result in us reporting amounts that are too high or too low in any particular period. Our accrued expenses are dependent, in part, upon the receipt of timely and accurate reporting from external clinical research organizations and other third-party service providers. Due to the nature of estimates, we cannot assure you that we will not make changes to our estimates in the future as we become aware of additional information about the status or conduct of our clinical trials and other research activities.

Results of Operations

Comparison of the Years Ended December 31, 2020 and 2019

The following table sets forth the significant components of our results of operations:

	Year Ended December 31,		Change	
	2020	2019	(\$)	(%)
Grant revenue	\$ 698,468	\$ 1,122,740	\$ (424,272)	(37.8)
Research and development	(893,802)	(2,552,711)	1,658,909	(65.0)
Selling, general and administrative	(2,623,158)	(4,268,177)	1,645,019	(38.5)
Loss from operations	(2,818,492)	(5,698,148)	2,879,656	50.5
Interest expense, net	(29,402)	(24,835)	(4,567)	18.4
Net loss	<u>\$ (2,847,894)</u>	<u>\$ (5,722,983)</u>	<u>\$ 2,875,089</u>	<u>50.2</u>

Grant Revenue

Grant revenue for the year ended December 31, 2020 decreased by \$424,272 or 37.8% to \$698,468 from \$1,122,740 in the prior year. The decrease was driven by decreased grant research activity during 2020 compared to 2019. During 2020, our focus was shifted toward advancing our Phase I clinical trials which did not result in grant revenue.

Research and Development

Research and development expenses decreased by \$1,658,909 or 65.0% to \$893,802 from \$2,552,711 in the prior year. The decrease was driven by a \$0.3 million decline in grant related research expenditures and a \$1.2 million decrease in non-grant related research. The non-grant related research was expended primarily in connection with preparation for our Phase I PD clinical trials. Research and development related stock compensation expense decreased by approximately \$0.1 million.

Selling, General and Administrative

Selling, general and administrative expenses decreased by \$1,645,019 or 38.5% to \$2,623,158 from \$4,268,177 in the prior year. The decrease was primarily the result of expensing of deferred IPO costs of \$1.59 million in 2019 from the abandoned 2018 IPO effort which was a one-time charge and a net decrease in other normal operating expenses in the amount of \$0.16 million, partially offset by an increase of \$0.1 million in stock and warrant compensation expense.

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Interest Expense

Interest expense increased by \$4,567 or 18.4% to \$29,402 from \$24,835 in the prior year. The increase was due to an increase in average outstanding notes payable balances in the current year compared to the prior year. The increase in outstanding notes payable balances was primarily related to the increasing balance in the Flagship 2020 note until it was converted into common stock in December 2020 and the loan from our chief executive officer, or CEO, in February 2020 which carried a balance of approximately \$248,000 from February to December 31, 2020.

Cash Flows

The following table sets forth a summary of the primary sources and uses of cash for each of the periods presented below:

	Year Ended December 31,	
	2020	2019
Net cash used in operating activities	\$ (1,129,355)	\$ (338,290)
Net cash provided by (used in) financing activities	15,064,411	(22,810)
Net increase (decrease) in cash	<u>\$ 13,935,056</u>	<u>\$ (361,100)</u>

Net Cash Flows Used in Operating Activities

Net cash flows used in operating activities for the year ended December 31, 2020 totaled \$(1,129,355), and consisted primarily of a net loss of \$(2,847,894) adjusted for non-cash stock compensation of \$573,695, non-cash warrant expense of \$1,443,426, non-cash consulting fees of \$148,795, non-cash interest expense of \$17,260, decrease in prepaid expenses and other assets of \$37,913, decrease in accrued expenses and other current liabilities of \$1,076,758, decrease in accounts payable of \$247,071 and an increase in deferred revenue of \$897,105.

Net cash flows used in operating activities for the year ended December 31, 2019 totaled \$(338,290), and consisted primarily of a net loss of \$(5,722,983) adjusted for non-cash stock compensation of \$1,436,608, non-cash warrant expense of \$574,324, decrease in deferred initial public offering costs expensed during 2019 of \$1,591,989, non-cash consulting fees of \$150,000, decrease in prepaid expenses of \$382,162, decrease in accrued expenses of \$437,060, increase in deferred revenue of \$1,166,268, decrease in accounts receivable of \$472,941 and a net change in other operating assets and liabilities of \$47,461.

Cash Provided by (Used in) Financing Activities

Net cash flows provided by financing activities for the year ended December 31, 2020 totaled \$15,064,411, which consisted of \$14,786,741 in proceeds from issuance of common stock in connection with our December 2020 initial public offering and \$272,800 in proceeds from a note payable issued to our CEO and \$4,870 in proceeds from the issuance of unregistered common stock to a private accredited investor.

Net cash flows used in financing activities for the year ended December 31, 2019 totaled \$(22,810), which represented repayments of notes payable.

Since our inception through December 31, 2020, we have raised an aggregate of approximately \$39.8 million in net proceeds through awarded grants or contracts and equity sales. Approximately 51% of the aggregate proceeds raised came through awarded grants and contracts.

Stock-Based Compensation

We have granted stock-based awards, consisting of non-qualified stock options, to our employees, certain non-employee consultants and members of our board of directors, both past and present. We measure stock-based compensation expense for stock options granted to our employees and directors on the date of grant and recognize the corresponding compensation expense of those awards over the requisite service period, which is generally the vesting period of the respective award.

We estimate the fair value of stock options granted to our employees and directors on the grant date, and the resulting stock-based compensation expense, using the Black-Scholes-Merton option pricing model. The Black-Scholes-Merton option pricing model requires management to determine the fair market value of the common stock at the date of the award. Prior to our December 2020 initial public offering, the fair market value of the common stock was determined utilizing the risk adjusted net present value, or rNPV, option-pricing model as performed by an independent third-party consultant. Since December 22, 2020, the fair market value of the common stock is determined by reference to the closing price of our common stock on the Nasdaq Capital Market on the grant date of the option.

For options or warrants granted to non-employee consultants prior to January 1, 2020, the fair value of these options was remeasured using the rNPV Black-Scholes-Merton option-pricing model reflecting the same assumptions as applied to employee options in each of the reported periods, other than the expected life, which is assumed to be the remaining contractual life of the option.

Prior to January 1, 2020, we accounted for stock-based compensation arrangements with non-employee consultants using a fair value approach. The estimated fair value of unvested options granted to non-employee consultants was remeasured at each reporting date through the date of final vesting. As a result, the noncash charge to operations for non-employee options with vesting conditions was affected in each reporting period by changes in the estimated fair value of our common stock. We adjust for actual forfeitures as they occur.

On January 1, 2020, the Company adopted ASU No. 2018-07, Compensation – Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting (ASU 2018-07), which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employee consultants. The estimated fair value of unvested options granted to non-employee consultants is no longer remeasured at each reporting date through the date of final vesting. The adoption of this ASU did not have a material impact on the Company's financial statements.

As there had been no public market for our common stock prior to our December 2020 initial public offering, the estimated fair value of our common stock had been determined by an independent third-party consultant using an rNPV process and approved by our board of directors. The factors utilized by such independent third-party consultant included, but were not limited to: our results of operations, financial position and capital resources; current business conditions and projections; the lack of marketability of our common stock; the hiring of key personnel and the experience of management; the risk inherent in the development of our products and our stage of development and material risks related to its business; the fact that the option grants involve illiquid securities in a private company; and the likelihood of achieving a liquidity event, such as an initial public offering or sale, in light of prevailing market conditions.

Following the closing of our December 2020 initial public offering, our board of directors will determine the fair market value of our stock-based awards based on the closing price of our common stock as reported on the date of grant on the Nasdaq Capital Market exchange on which our common stock is traded.

The intrinsic value of all in the money outstanding options as of December 31, 2020 was approximately \$17.6 million, based on the closing price of our common stock of \$6.90 per share at December 31, 2020, of which approximately \$17.4 million is related to vested options and approximately \$.02 million is related to unvested options.

July 24, 2020 Valuation Report and August 25, 2020 Warrant Grants

On August 25, 2020, the Company granted a fully-vested warrant to purchase up to 21,854 shares of its common stock to Flagship Consulting, Inc. in connection with consulting services provided to the Company. The warrant is exercisable at a strike price of \$5.90 per share and has a contractual term of seven years. The warrant is classified within stockholders' deficit at its fair value as a standalone instrument. The grant date fair value of the warrant was determined to be \$87,597 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and is included in selling, general and administrative expenses for the year ended December 31, 2020.

On August 25, 2020, the Company granted a warrant to purchase up to 150,000 shares of its common stock to Flagship Consulting, Inc. in connection with consulting services to be provided to the Company. The warrant is exercisable at a strike price of \$5.90 per share and has a contractual term of seven years. The warrant vests in full and becomes exercisable on the first anniversary of the grant date. The warrant will be classified within stockholders' deficit at its fair value as a standalone instrument. The aggregate grant date fair value of the warrant was determined to be \$601,245 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and will be included in selling, general and administrative expenses as services are rendered during its 12-month vesting period. \$210,818 is included in selling, general and administrative expense for the year ended December 31, 2020.

The exercise price of both such warrants was the fair value of our common stock on the date of grant and the aggregate stock-based compensation expense for both such warrants was determined to be \$688,842 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance. To the extent the warrants fail to vest, the charges will be reversed against that period's total stock-based compensation expense.

Our board of directors determined the fair value of our common stock on the date of grant for such warrants based in part on an appraisal of the value of our common stock as of July 24, 2020 that was prepared by an independent third-party valuation specialist. The July 24, 2020 valuation resulted in the \$5.90 fair value that was utilized for the warrant grants as our board of directors concluded that no significant internal or external value-generating events had taken place between the July 24, 2020 valuation report and the August 25, 2020 grant date. On September 24, 2020, the same independent third-party valuation specialist updated its July 24, 2020 valuation to assess the fair value of our common stock as of August 25, 2020. The updated appraisal resulted in a \$5.87 fair value.

JOBS Act

The JOBS Act permits an emerging growth company such as us 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 avail ourselves of the extended transition period for complying with new or revised financial accounting standards.

We will remain an emerging growth company until the earliest of (i) the last day of our first fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) the date on which we are deemed to be a "large accelerated filer" under the rules of the SEC with at least \$700.0 million of outstanding equity securities held by non-affiliates; (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the previous three years; or (iv) the last day of our fiscal year following the fifth anniversary of the date of the completion of our December 2020 initial public offering.

Recent Accounting Pronouncements

The JOBS Act permits an emerging growth company such as us 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 not to "opt out" of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private

companies, we will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until such time that we either (i) irrevocably elect to “opt out” of such extended transition period or (ii) no longer qualify as an emerging growth company.

Accounting Standards Adopted

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (“ASC 2016-15”), which provides guidance on the classification of certain specific cash flow issues including debt prepayment or extinguishment costs, settlement of certain debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of certain insurance claims and distributions received from equity method investees. The standard requires the use of a retrospective approach to all periods presented but may be applied prospectively if retrospective application would be impracticable. The guidance is effective for public entities for fiscal years beginning after December 15, 2017 and interim periods within those years, and after December 31, 2018 and interim periods beginning after December 31, 2019 for all other entities. Early adoption is permitted. The Company adopted this standard effective January 1, 2019. The adoption of ASU 2016-15 did not have a material effect on the Company’s financial statements.

In June 2014, the FASB issued amended guidance, ASUNo. 2014-09, Revenue from Contracts with Customers (“ASU 2014-09”), which is applicable to revenue recognition that will be effective for public entities for fiscal years beginning after December 31, 2017 and interim periods within those years, and after December 31, 2018 and interim periods beginning after December 31, 2019 for all other entities as a result of the deferral of the effective date adopted by the FASB in July 2015. The new guidance must be adopted using either a full retrospective approach for all periods presented or a modified retrospective approach. For public entities, early adoption prior to the original adoption date (annual reporting periods beginning after December 15, 2016) of ASU 2014-09 is not permitted. The new guidance applies a more principles-based approach to revenue recognition. The Company adopted the new standard, effective January 1, 2019, under the modified retrospective method. The Company’s adoption of this standard did not have a material effect on its financial statements.

On January 1, 2020, the Company adopted ASUNo. 2018-07, Compensation – Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting (ASU 2018-07), which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employees. An entity should apply the requirements of Topic 718 to non-employee awards except for specific guidance on inputs to an option pricing model and the attribution of cost (that is, the period of time over which share-based payment awards vest and the pattern of cost recognition over that period). The adoption of this ASU did not have a material impact on the Company’s financial statements.

Accounting Standards Issued, Not Yet Adopted

In February 2016, the FASB issued ASUNo. 2016-02, Leases (“ASU 2016-02”), which applies to all leases. Under ASU 2016-02, a right-of-use asset and lease obligation will be recorded for all leases, whether operating or financing leases, while the statement of operations will reflect lease expense for operating leases and amortization and interest expense for financing leases. ASU 2016-02 is effective for public entities for fiscal years beginning after December 15, 2018 and interim periods within those years, and after December 15, 2020 and interim periods beginning after December 15, 2021 for all other entities. Early adoption is permitted. Entities are required to use a modified retrospective approach of adoption for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Full retrospective application is prohibited. The Company’s adoption of the new standard is not expected to have a material impact on its financial statements.

BUSINESS

Overview

We are a clinical stage pharmaceutical company developing therapeutics for Parkinson's Disease, or PD, and related disorders that arise inside and outside of the brain. In 2021, we commenced clinical development of IkT-148009, a small molecule Abelson Tyrosine Kinase inhibitor we believe can modify the course of Parkinson's disease and its manifestation in the gastrointestinal tract, or GI. Results to date of our ongoing Phase 1 Single and Multiple Ascending Dose escalation study (SAD and MAD, respectively) in older and elderly healthy volunteers have revealed important insights into the pharmacology of IkT-148009 in human subjects. We anticipate enrolling up to 112 subjects in the Phase 1 study. To date, 40 subjects have received IkT-148009. Results from the Phase 1 study have shown that IkT-148009 has a half-life of greater than 24 hours, and just a 25 mg once daily oral dose reached exposures that are consistent with the exposure to IkT-148009 that resulted in therapeutic efficacy in animal models of progressive Parkinson's disease. This has led to an acceleration of the clinical development program by more than 6 months. Subject to discussions with the FDA, we plan to initiate dosing in a Parkinson's patient population as part of the Phase 1 MAD study. Clinical development of IkT-148009 for the GI complications in PD patients will cross-reference the Phase 1 Study of IkT-148009 for the treatment of PD. In support of our clinical development program, we have now completed 3 months of our chronic toxicology program of IkT-148009 in both rat and monkey. These toxicology studies will continue for 3 additional months in rat and 6 additional months in monkey. We have also advanced clinical batch manufacturing and pill formulation for our platform prodrug technology involving IkT-001Pro.

Our programs utilize small molecule, oral protein kinase inhibitors to treat PD and its GI complications. We have shown in animal models of progressive disease that IkT-148009 is a brain penetrant Abelson tyrosine kinase, or c-Abl, inhibitor that halts disease progression and reverses functional loss in the brain and reverses neurological dysfunction in the GI tract. The ability to halt progression and restore function was shown in animal models of progressive disease that mimic the rate of disease progression and the extent of functional loss in the brain and/or the GI tract as found in patients with PD. We believe our therapeutic approach is disease-modifying. Our understanding of how and why PD progresses has led us to believe that functional loss in Parkinson's patients may be at least partially reversed. Based on the measurements in animal models, we believe patients treated with IkT-148009 may have their disease progression slowed or halted, we may see a progressive reduction in the need for symptomatic or supportive therapy and/or we may ultimately eliminate the need for symptomatic therapy. However, it is unknown whether the disease modification seen in the animal models will occur in the human disease following treatment with IkT-148009.

In our opinion, the multi-decade failures in the treatment of neurodegenerative diseases such as PD result from a lack of understanding of the biochemistry of the disease processes involved. Neurodegeneration is marked by a progressive degeneration and loss of function of neurons which send and receive signals to and from the brain. Historically, the cause of a neurodegenerative disease was thought to be a "plaque" made up of a misfolded and/or aggregated protein(s). Therapeutic approaches, therefore, sought to remove "plaque" from the brain. A "plaque"-focused treatment strategy has failed to alter the course of Parkinson's disease in two Phase 2 trials that reported results in 2020 and 2021. We believe we are different. We identified the proteins that become dysfunctional in a disease pathway and sought to understand how a dysfunctional protein causes disease. We believe our approach to PD and other neurological diseases has identified the underlying cause of disease and led to an understanding of how individual proteins are linked together to define the disease process. Using this strategy, we believe we have discovered at least one enzyme that plays a pivotal role in the disease process for PD, the Abelson Tyrosine Kinase c-Abl. We have developed novel protein kinase inhibitors against c-Abl, which we believe can alter the disease course for PD. c-Abl chemically modifies one of the "plaque" proteins in PD, known as alpha-synuclein. Chemical modification creates what we believe to be the true toxic entity of the disease. Treatment with IkT-148009 may prevent chemical modification and, at least in animal models of progressive disease, leads to clearance of the toxic form of alpha-synuclein from the affected neurons.

In addition to programs in PD, our platform drug discovery and delivery technologies have identified additional opportunities, including a potential treatment for bacterial or viral infections in the brain using a single

agent at fixed dose, and an oncology opportunity in stable-phase Chronic Myelogenous Leukemia, or CML. Our product for CML, IKT-001Pro, is a prodrug of the anticancer agent Imatinib. A prodrug is a compound that, after administration, is metabolized by the body into a pharmacologically active drug. Imatinib is an FDA designated Orphan Drug and is the standard-of-care treatment for stable-phase CML. In the United States, orphan drug designation entitles a party to incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. We remain on track to submit an IND to initiate clinical development for IKT-001Pro in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design and execution of the clinical development program and additional funding, we believe that clinical development of IKT-001Pro could possibly be completed in 2022. We intend to submit a new drug application, or NDA, for IKT-001Pro pursuant to Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which specifies the requirements for approval. This pathway would allow us to rely, in part, on data in the public domain or the FDA's prior conclusions regarding the safety and effectiveness of an approved compound. Consistent with FDA guidance on the 505(b)(2) pathway, we will seek input from the FDA as to what should be included in the application prior to submission of the 505(b)(2) application. Pursuit of this oncology opportunity will seek to validate the pharmacology advantage of our prodrug technology in a well understood patient population with an approved drug substance. If we are able to validate IKT-001Pro in oncology, we will evaluate whether the pharmacology advantages we discover about IKT-001Pro could be applied to novel drug substances, such as IKT-148009.

We believe we are one of the pioneers of the application of protein kinase inhibitors to non-oncology indications, including neurodegeneration and infectious diseases, as well as their more traditional role in the treatment of cancer. As of the date of this prospectus, more than 50% of the Company's total funding has been received from Private, State and Federal granting agencies, including the National Institutes of Health, the Department of Defense and the Michael J. Fox Foundation, with the balance the result of equity sales in the private and public sectors. Private, State and Federal granting agencies use extensive scientific peer review in deciding which projects to fund that could impact human disease. Our ability to advance the Company on the basis of scientific peer review reflects the potential our scientific peers see for the possible success of our therapeutic programs.

To increase the probability of success, we are making parallel investments in several product candidates and back-up candidates, and plan to advance only those candidates to the later stages of clinical development that show strong preclinical and early clinical data. By developing a portfolio of product candidates across therapeutic indications, we can continuously apply learnings and tools across programs and leverage economies of scale in our research and development organization. Our target indications include diseases with large patient populations, such as PD, as well as orphan indications, such as Progressive, Multifocal Leukoencephalopathy, Multiple System Atrophy and Chronic Myelogenous Leukemia.

We currently have worldwide commercialization rights to all of our development programs and IP protection until 2033 or later.

RAMPTM: Our Reengineering Approach with Metabolism Preserved

Our candidate portfolio relies on our medicinal chemistry design approach which evaluates the human pharmacology of an approved drug and uses the approved drug as a template on which to base a novel drug design. Key to this proprietary process is the reproduction of the metabolism of the template in the new molecule. By preserving the metabolic process and generating metabolites in the new molecule that match the metabolites of the template, we believe the safety profile of the new molecule will be nearly the same as the template. We believe the safety profile will be the same because most side effects arise from the chemical structure, the drug's selectivity for the target and the metabolites of the drug. When the metabolites of the template and the new molecule chemically match, there is a high likelihood that the safety profile of the new molecule will be similar to or the same as the safety profile of the template. We validated this was the case for IKT-148009, our lead molecule for PD and related disorders, which used Imatinib as a design template. Imatinib is the active ingredient in the anti-cancer drug Gleevec®, whose side effect profile linearly correlates with oral dose. With metabolite

matching between IKT-148009 and Imatinib, we believe we can take advantage of the linear correlation between side effects and oral dose because IKT-148009 is 18-fold more potent than Imatinib against its therapeutic target, predicting a dose that will be lower than the standard dose of Imatinib (400 mg) and predicting a human safety profile that is expected to be no worse than that of Imatinib.

Our Portfolio

IKT-148009: Our product candidate for Parkinson's Disease and related alpha-synuclein disorders

Market and Commercial Opportunity

Parkinson's Disease (PD) is the second most prevalent neurodegenerative disorder, affecting 700,000 to 1,000,000 persons in the United States, with 60,000 new cases and 38,000 deaths annually with an average age of onset of 60 years of age. In addition to the 60,000 new cases each year, thousands of cases go undetected. Almost all patients with Parkinson's disease will eventually need to take medication to help with their symptoms. Worldwide, there could be as many as 10,000,000 cases of PD. By 2025, PD drug sales are expected to double; sales estimates by 2025 are expected to crest \$6.0 billion. The country with the highest diagnosed prevalence of PD is the U.S. PD tends to be a disease of men, with a nearly 2:1 ratio of men:women among patients diagnosed with this disease. A particular challenge to the treatment of Parkinson's patients are their comorbidities, which include arthritis, cardiovascular disease, psychosis and dementia. The future market for treatment is robust, with the compound annual growth rates for patients with PD that are diagnosed and not diagnosed are 2.7% and 1.8%, respectively, and we expect those growth rates to continue through the foreseeable future. In the U.S. market, patients currently expend \$15,000 to \$25,000 per year to treat the symptoms of PD, creating a multibillion-dollar opportunity for disease-modification of this devastating disease. Moreover, since the same product would be used to treat both PD and its GI complications, we believe we have multiple opportunities to achieve commercial success in several treatment areas in this market.

Drug	Mechanism of Action	Subjects	Primary Outcome	Results
AAV2-Neurturin	Neurotrophic Factor	Advanced PD subjects n = 51	Change in UPDRS Part III in practically-defined "off" - state	No statistically significant difference between treated and control groups
Coenzyme Q10	Bioenergetic Antioxidant	Early PD subjects not requiring dopaminergic therapy n = 600	Change in total UPDRS score	Terminated early due to futility
Creatine	Bioenergetic	Early PD subject requiring dopaminergic therapy n = 1741	Difference in decline of clinical status defined by 5 outcome measures	Terminated early due to futility
Isradipine	Dihydropyridine calcium channel blocker	Early PD subjects not requiring dopaminergic therapy n = 336	Change in Part I-II UPDRS score	No statistically significant difference between treated and control groups
Pioglitazone	PPAR-γ Agonist	Early PD subjects on rasagiline or selegiline n = 210	Change in total UPDRS score	Futility

The unmet medical need can be illustrated by a sampling of the Phase 3 trials that have been stopped for futility and/or failed to show a statistically significant difference between treated patients and placebo control groups.

For these trials and others detailed in the references above, multi-year assessments of clinical progression of Parkinson's patients, even in trials involving thousands of patients, have failed to show any therapeutic benefit, slow or halt the progression or reduce the severity of this disease. Given the size of the addressable market, we believe we have a significant commercial opportunity before us.

c-Abl inhibition as a treatment focus in PD and related diseases.

PD is a progressive disorder characterized by tremors, rigidity, difficulty in walking and an inability to maintain one's posture or keep oneself from falling.¹² Pathologically, PD is characterized by degeneration of neurons in an area of the brain near the brainstem, coupled with the clumping and accumulation of misfolded

¹ J.M. Savitt, V.L. Dawson, T. M. Dawson, Diagnosis and treatment of Parkinson disease: molecules to medicine. *J Clin Invest.* 116, 1744-1754 (2006).

² W. Dauer, S. Przedborski, Parkinson's Disease: mechanisms and models. *Neuron.* 39, 889-909 (2003).

proteins in cell bodies known as Lewy bodies (LBs)³⁴⁵. The clinical and pathologic features of PD affect other areas of the brain in addition to the brainstem, resulting in a widespread pathology that is not adequately controlled with dopamine-replacement (i.e. levodopa) therapy.⁶ Manifestations of PD include falling, freezing, neuropsychiatric disorders, GI complications, sensory problems, and cognitive impairment with dementia.⁶ PD is initiated by a dysfunctional protein known as alpha-synuclein. In its dysfunctional form, alpha-synuclein is aggregated and likely to be misfolded, which alters its physiological properties in the body. Dysfunctional alpha-synuclein, when taken up by a neuron, starts a cascade of events that are illustrated in Fig. 1.

We believe that we can succeed in developing therapies that will slow or stop PD and related disorders because we and our collaborators have characterized the pathways in Fig. 1. We believe the Abelson tyrosine kinase, or c-Abl, acts as a checkpoint on the pathway driving neurodegeneration. The steps on the pathway illustrated in Fig. 1 have been validated in multiple contexts and multiple organ systems and by reproducing parts of these results in preclinical animal models in three independent laboratories. Drawing from this knowledge, we believe inhibition of c-Abl will block the events downstream of c-Abl in these pathways and modify disease for PD and other alpha-synuclein related disorders.

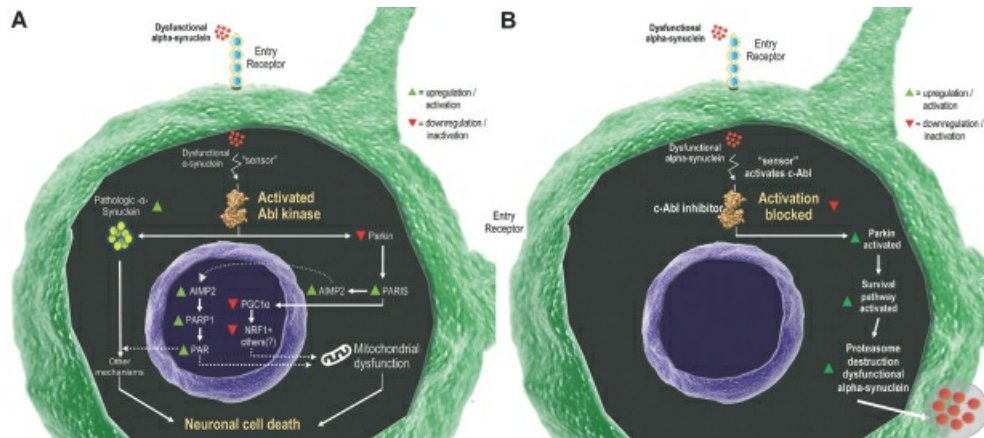







Fig. 1: A common pathway governs the process of neurodegeneration that initiates with dysfunctional alpha-synuclein.(A) Dysfunctional alpha-synuclein forms within a neuron as a consequence of chemical, environmental and/or genetic events. Once formed it can exit one neuron and into another through an entry receptor/transporter.⁷ Upon entering a neuron, dysfunctional alpha-synuclein is recognized by an unknown sensor that leads to activation of c-Abl. Once c-Abl is activated, c-Abl acts on dysfunctional alpha-synuclein to form

- 3 M. Goedert, a-Synuclein and neurodegenerative diseases. *Nat Rev Neurosci.* 2, 492-501 (2001).
- 4 M. Goedert, M.G. Spillantini, K. Del Tredici, H. Braak, 100 years of Lewy pathology. *Nat Rev Neurol.* 9, 13-24 (2013).
- 5 V.M. Lee, J. Q. Trojanowski, Mechanisms of Parkinson's Disease linked to pathological alpha-synuclein: new targets for drug discovery *Neuron.* 52, 33-38 (2006).
- 6 A.H.V. Schapira, C.W. Olanow, J. T. Greenamyre, E. Bezdard, Slowing of neurodegeneration in Parkinson's Disease and Huntington's disease: future therapeutic perspectives. *Lancet* 384, 545-555 (2014).
- 7 X. Mao, M.T. Ou, S.S. Karuppagounder, T.I. Kam, X. Yin, Y. Xiong, P. Ge, G.E. Umanah, S. Brahmachari, J.H. Shin, H.C. Kang, J. Zhang, J. Xu, R. Chen, H. Park, S.A. Andrabi, S.U. Kang, R.A. Gonçalves, Y. Liang, S. Zhang, C. Qi, S. Lam, J.A. Keiler, J. Tyson, D. Kim, N. Panicker, S.P. Yun, C.J. Workman, D.A. Vignali, V.L. Dawson, H.S. Ko, T.M. Dawson, Pathological a-synuclein transmission initiated by binding lymphocyte-activation gene 3. *Science* 353, (2016).

what we believe is the true toxic or pathological entity of the disease. C-Abl modifies dysfunctional alpha-synuclein by phosphorylation on Tyr39 of alpha-synuclein (pY39) and potentially other sites.⁸⁹ Phosphorylated alpha-synuclein goes on to influence the dysfunction of mitochondria and to drive cell death. C-Abl activation also phosphorylates a second protein, parkin. Parkin normally tags toxic proteins like dysfunctional alpha-synuclein so that they can be removed through an enzyme process known as the proteasome, which is the survival pathway that normally protects neurons from toxic proteins. But, when c-Abl acts on parkin, c-Abl inactivates it, shutting down the survival pathway and promoting nuclear and mitochondrial events that kill the neuron. (B) Ikt-148009 acts systemically to block c-Abl activation, even when dysfunctional alpha-synuclein is present. Blocking c-Abl preserves the survival pathway leading to the removal of dysfunctional alpha-synuclein. In the presence of Ikt-148009, toxic pY39 alpha-synuclein fails to form.

Ikt-148009 for neurodegenerative disease

Table 1

Drug Target	Drug candidate	Modality	Disease indication	CLINICAL DEVELOPMENT ¹				BIOMARKER ²		
				PRECLINICAL DEVELOPMENT	PHASE 1	PHASE 2	PHASE 3	Preclinical target engagement ³	Clinical target engagement ³	Can be used for patient selection ³
Neurodegeneration										
c-Abl	Ikt-148009	Small molecule	Parkinson's Disease: Treatment Naïve					Validated	Validating	Yes
c-Abl	Ikt-148009	Small molecule	Parkinson's Disease: Early Stage					Validated	Validating	Yes
c-Abl	Ikt-148009	Small molecule	Neurogenic Constipation			4 Indicators Passed Through 2 INDs in PD. Shares Same Phase 1		Validated	Validating	Yes
c-Abl	Ikt-148009	Small molecule	Dysphagia					Validated	Validating	Yes
c-Abl	Ikt-148009	Small molecule	Multiple System Atrophy			New IND to be prepared and filed 4Q21. Shares Same Phase 1		Validated	Validating	Yes

- (1) 'Clinical Development' progress bars represent the current state of the indicated programs. Blue arrows represent completed or in progress studies; white arrows represent planned approaches for future clinical studies.
- (2) Four indications will be pursued for Ikt-148009 in PD, which will be pursued through two INDs, one focused on treatment in the brain in treatment-naïve or early-stage patients and the second focused on GI complications of PD patients. Ikt-148009 will be pursued in a fifth indication in Multiple System Atrophy and cross-reference the same Phase 1 study in PD but will be pursued through a separate IND filing planned for later this year. The Company anticipates initiating a Phase 1b study in treatment naïve and early stage Parkinson's patients with GI complications for Ikt-148009 in the next 3 months, subject to additional financing and FDA discussions. The Phase 2 study may be shared in whole or in part for the four indications in PD and its GI complications. Ikt-148x refers to a series of portfolio compounds being evaluated for these indications in preclinical models that are from the same chemical family as Ikt-148009.
- (3) For biomarker status, 'Validated' refers to proof of target engagement in the target tissue which has been performed using rodent tissues and fluids. We are currently developing methods for using clinical samples for validating our ability to confirm target engagement in patients. 'Validating' in this context indicates ongoing efforts to prove target engagement using proprietary sources and methods under development from human tissues and fluids. Target engagement measures if and to what extent a compound occupies its target. 'Can be used for patient selection' refers to our ability to use one or more markers we are currently 'Validating' to screen patients for the presence of that marker as a means of defining the patients most likely to benefit from the proposed treatment.

Ikt-148009, which we have shown in animal models to be selective and brain penetrant, is a small molecule c-Abl inhibitor that we will be using in clinical trials to treat two groups of PD patients and two additional groups to evaluate GI complications that arise early in the disease course in PD patients. We delineate the GI complications from PD because we will evaluate the GI complications using unique measurements and endpoints that are distinct from PD itself. Thus, we believe we will have four opportunities to succeed with Ikt-148009, lowering the risk of failure during the development program. A fifth program for Ikt-148009 involves the orphan

⁸ S. Brahmachari, P. Ge, S.H. Lee, D. Kim, S.S. Karuppagounder, M. Kumar, X. Mao, J.H. Shin, Y. Lee, O. Pletnikova, J.C. Troncoso, V.L. Dawson, T.M. Dawson, H.S. Ko, Activation of tyrosine kinase c-Abl contributes to a-synuclein-induced neurodegeneration. *J Clin Invest.* 126, 2970-88 (2016).

⁹ S. Brahmachari, S. Lee, S. Kim, C. Yuan, S.S. Karuppagounder, P. Ge, R. Shi, E.J. Kim, A. Liu, D. Kim, S. Quintin, H. Jiang, M. Kumar, S.P. Yun, T.I. Kam, X. Mao, Y. Lee, D.A. Swing, L. Tessarollo, H.S. Ko, V.L. Dawson, T.M. Dawson. Parkin interacting substrate zinc finger protein 746 is a pathological mediator in Parkinson's disease. *Brain.* 2019 Aug 1;142(8):2380-2401. doi: 10.1093/brain/awz172.

disease Multiple System Atrophy, which we discuss further below. We believe we have further lowered the risks associated with development of IkT-148009 because we believe key aspects of the underlying pharmacology of IkT-148009 are the same as the ADME properties of the template molecule, Imatinib, from which IkT-148009 was chemically derived. IkT-148009 is a true new molecular entity and is subject to the regulatory guidance for new chemical entities from the FDA. The five indications to which IkT-148009 will be applied are listed in Table 1.

Validated animal models recreate the rate of progression and severity of the human disease

To establish whether IkT-148009 could impact the disease course in PD and related disorders, it was necessary to recreate the human disease in animals for both the location in the body where the disease occurs and for the timeframe of disease progression relative to lifespan. In patients, PD often takes 25 years to lead to death, approximately 1/3 of the average human lifespan in the United States. One-third of the lifespan of a mouse is one year. Thus, to create a true mimic of the human disease, we introduced dysfunctional synuclein aggregates into the mouse brain at the nigrostriatal region near the brainstem, or in the GI tract, and then let the disease slowly progress (Fig. 2). Two to four months into the disease course in the mouse (equivalent to 4 to 8 years into the human disease course), once per day oral dosing of IkT-148009 was begun, leading to a profound, durable modification of the functional loss observed inside and outside of the brain, as described below.

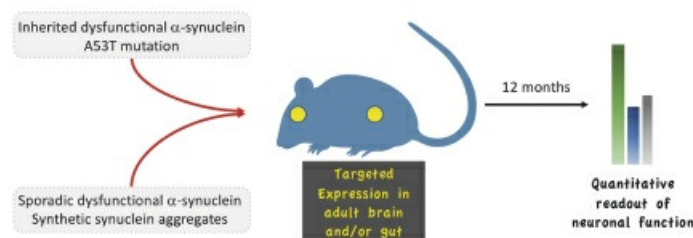


Fig. 2: Validated animal models of PD and related disorders Radiographic-guided injection of an expression vector for dysfunctional synuclein, or direct injection of dysfunctional protein itself, enables targeted evaluation of slowly progressive disease course in the mouse, equivalent to the 25-year disease course in humans. Oral 1x/day dosing of IkT-148009 at modest doses (50 to 150 mg/kg/day) is begun at 3 to 4 months of age and continues for up to 7 months before animals are evaluated for functional recovery followed by humane sacrifice and detailed histopathology and biochemical analysis.

Efficacy of IkT-148009 in validated, humanized mouse models of PD and related disorders

1. Functional Reversal in the Brain. About 10% of human PD arises from a genetic defect that leads to inherited disease. One of these inherited defects is the Alanine-to-Threonine mutation at position 53 (A53T) in alpha-synuclein. A53T can be introduced into mouse brain using an adeno-associated vector (AAV vector) that is injected using MRI guidance to place the expression vector for A53T into the nigrostriatal region of mouse brain, the same region of the brain where PD occurs in human patients. Disease in this model develops over a 6-month period to degenerate 50% of dopamine-secreting (DA) neurons, mimicking the timeframe of 50% neurodegeneration in this part of the brain of PD patients. We introduce A53T in just one hemisphere of the mouse brain so we can use the other brain hemisphere as an internal control. Mice with 50% neurodegeneration in just one hemisphere lose the ability to walk in straight lines, so we measure functional loss and recovery by counting circles traversed by the mice in a fixed period of time (Fig. 3).

Six weeks after introduction of A53T, 1x/day dosing of IkT-148009 was initiated. Functional readout was performed with the amphetamine-rotation test at 6 months of age. Dosing with IkT-148009 resulted in nearly complete restoration of normal function in this test, indicating that IkT-148009 reversed functional loss in the brain (Fig. 3).

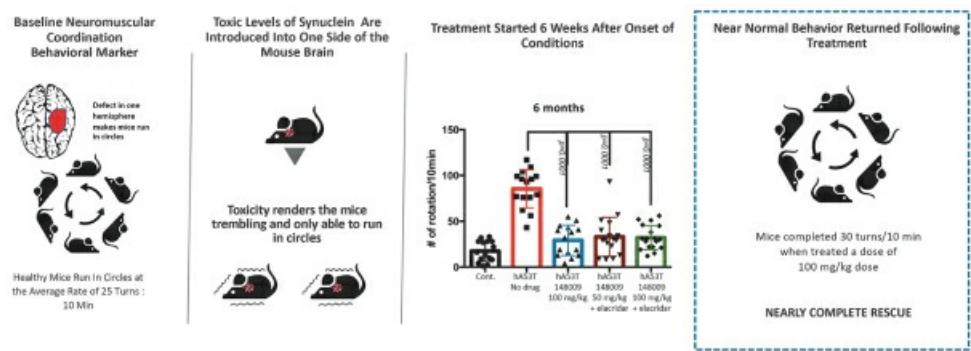


Fig. 3: Ikt-148009 induces functional recovery in brain damaged by A53T-alpha-synuclein. Using the amphetamine-rotation test (Fig. 3), normal mice traverse 25 rotations in 10 minutes, but mice with A53T in one hemisphere can only run in circles and traverse 90 rotations in the same time. Ikt-148009 treated with 100 mg/kg/day traverse 30 rotations four months after treatment began, indicating that their functional defect has been largely overcome. We also evaluated what happens with Ikt-148009 in the presence of an inhibitor of P-glycoprotein (a PGP inhibitor). C-Abl inhibitors do not have trouble penetrating the brain, but they are substrates for PGP, and PGP pumps c-Abl inhibitors out of the brain and back into the bloodstream that reduces effectiveness in the brain. To demonstrate the design of Ikt-148009 suppressed the likelihood that the drug is a substrate for PGP, we co-administered the PGP inhibitor elacridar with Ikt-148009. As is readily apparent, elacridar did not have a material effect on the ability of Ikt-148009 to restore function in the A53T brain, indicating that Ikt-148009 is unlikely to be a PGP substrate. This confirms that Ikt-148009 has a unique ability to penetrate the brain and reach a therapeutic concentration. In experiments not shown, we established that co-administration of elacridar with Ikt-148009 did not interfere with the ability of elacridar to inhibit PGP.

Functional reversal is accompanied by halting of neurodegeneration and rescue of affected neurons in response to treatment. That we have achieved this outcome can be appreciated from counting the number of neurons in the affected region of the brain using two different staining procedures (Fig. 4) as well as by measuring the density of neural fibers in the affected region of the brain (Fig. 5).

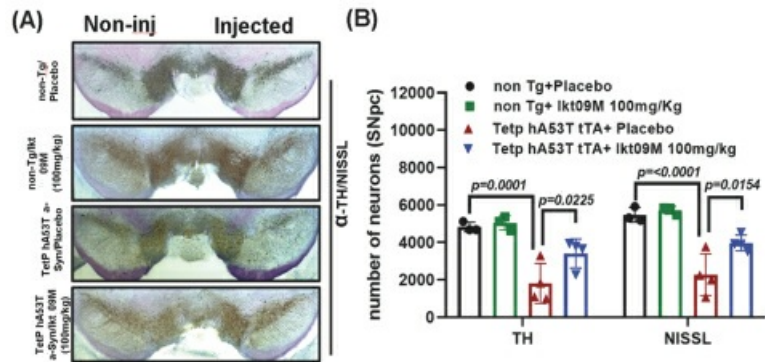


Fig. 4: Rescue of functional neurons in the brain in response to Ikt-148009 treatment. Tetracycline (Tet) inducible expression of A53T (Tetp hA53T) was compared to non-transgenic (nonTg) controls that were given

either drug vehicle or IKT-148009. The neurons were counted using two different markers of dopaminergic neurons: Tyrosine Hydroxylase (TH) or Nissl. A) staining of dopaminergic neurons in the substantia nigra pars compacta and B) quantitation of neural counts. While IKT-148009 did not have any effect on the number of neurons in control animals lacking A53T (compare black to green histogram), induction of A53T resulted in a 75%-80% reduction of dopaminergic neurons 6 months following induction. By contrast, induction of A53T for 5 weeks, followed by initiation of IKT-148009 treatment by daily oral gavage preserved most dopaminergic neurons (> 80%).

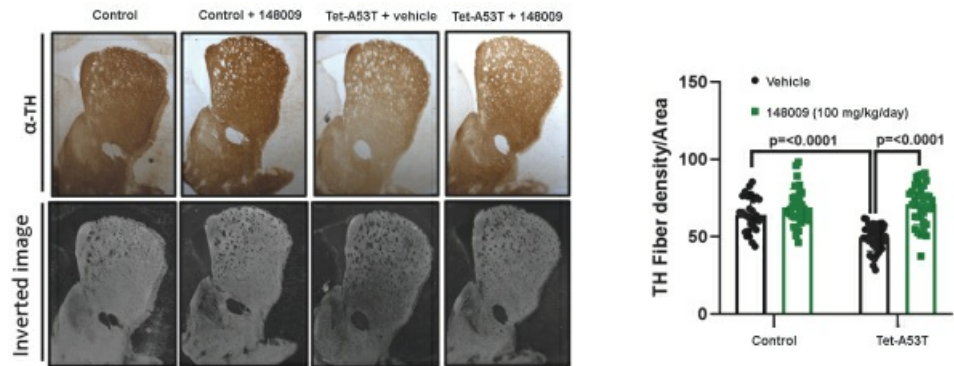


Fig. 5: Rescue of functional neurons in the brain in response to IKT-148009 treatment. Tetracycline inducible expression of A53T (Tetp hA53T) was compared to non-transgenic (nonTg) controls that were given either drug vehicle or IKT-148009. From each neuron extends a neural fiber or neurite, the density of which can be imaged (A) and the optical density analyzed per unit area (B) in the substantia nigra. While IKT-148009 did not have any effect on the optical density of neural fibers on its own (marked by control in the histogram), in the A53T animals, treatment with IKT-148009 preserved and/or restored the density of nerve fibers in the brain.

To demonstrate target engagement in the brain following oral, 1x/day administration, the ability of IKT-148009 to suppress activation of c-Abl can be measured by quantifying the suppression of the active form of c-Abl, which is autophosphorylated at Tyr²⁴⁵. As seen in Fig. 6, in the presence of 50 mg/kg/day IKT-148009, the ratio of the active:inactive form of c-Abl in the brain returns to levels below baseline in these animals. In the presence of the efflux transporter inhibitor, slightly better inhibition of c-Abl activation is observed.

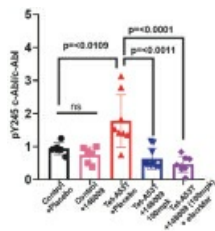


Fig. 6: Measurement of target engagement by suppression of c-Abl activation in the presence of IKT-148009. Western blot of tissue extracts of substantia nigra were assessed for the presence of activated c-Abl, which is visualized using an antibody against the auto phosphorylated form which is phosphorylated at Tyr²⁴⁵. We express this as a ratio of activated to unactivated c-Abl. As is clear from these measures, IKT-148009 did not

suppress or induce c-Abl activation on its own (compare black to pink bars), but c-Abl is robustly activated in the A53T mice. However, A53T mice treated with Ikt-148009 reduces the level of activated c-Abl to control levels. As discussed earlier, elacridar doesn't influence the activity of Ikt-148009 in the brain.

2. Functional preservation in an acute neurotoxicity model in the brain.

This pre-clinical model uses a chemical neurotoxin, MPTP (1-methyl-4-phenyl-1,2,3,6- tetrahydropyridine), to stimulate c-Abl activation in the absence or presence of Ikt-148009 (Fig. 7). That Ikt-148009 in this model appears to substantially protect neurons from degradation is shown in the four panels on the right half of Fig. 7. In these panels, the neurons in the portion of the brain commonly associated with PD, known as the substantia nigra pars compacta, are stained brown. The top two images show a normal mouse brain or a normal mouse brain after administration of Ikt-148009 on its own for 14 days at 100 mg/kg/day. The two images are very similar to one another and Ikt-148009 does not appear to induce neurodegeneration on its own. On the bottom row, the left image indicates what happens in this region of the brain when MPTP is administered. The neurons are substantially degraded, which is seen in the image as lightening of the brown punctate staining and the loss of the fine hair-like structures which are the neurites coming out of the cell bodies. This can be contrasted by the lower right image, where MPTP is administered in the presence of Ikt-148009, where it appears the neural density is preserved and very similar to the animals that did not receive MPTP (top row images). We interpret this to mean that Ikt-148009 treatment in this model blocked nearly all of the neurons in this region of the brain from degradation induced by MPTP, the region of the brain normally affected by PD.

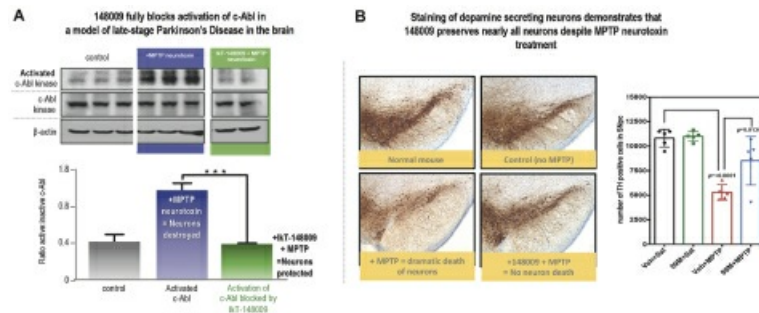


Fig. 7: Ikt-148009 blocks activation of c-Abl by the acute neurotoxin MPTP. A) Orally delivered Ikt-148009 at 50 or 100 mg/kg/day during a 14 day experiment blocks activation of c-Abl by MPTP in mouse brain. On the top is a Western Blot that enables quantification of the amount of inactive and activated c-Abl in mouse brain. On the bottom, the quantitation of the Western Blots for activated c-Abl demonstrates that Ikt-148009 maintains the level of activated c-Abl at baseline levels. The asterisks refer to the statistical analysis of the blots across three animals, with three asterisks representing a $P < 0.001$ in a Student's T-test. **B)** Four images of mouse brain from the substantia nigra pars compacta, the brain region where dopamine secreting neurons are located. These neurons are the ones that degenerate in the Parkinson's Disease patient brain. The images represent brain slices and the dopamine secreting neurons are stained brown. Going clockwise from the top left is 1) a normal mouse brain; 2) A normal mouse brain that has had daily dosing of Ikt-148009 for 14 days at 100 mg/kg/day; 3) Consequences in a mouse brain given MPTP in the presence of Ikt-148009 show nearly normal density of dopamine secreting neurons; we interpret this as indicative of nearly complete protection from neurodegeneration in this context. This image is nearly the same as the normal mouse in the upper left quadrant; and 4) the impact on neural density following administration of the acute neurotoxin MPTP to a mouse in the absence of Ikt-148009. The neural density in the absence of Ikt-148009 is significantly reduced following 4 intraperitoneal injections of MPTP at 20 mg/kg in these mice, representing the substantial degradation of dopamine secreting neurons in the test animal. The histogram to the right quantifies these images, illustrating that

statistically significant protection against neurodegeneration in this model is achieved with IkT-148009. In this histogram, ‘Veh’ refers to the vehicle in which IkT-148009 was dissolved, ‘09M’ refers to IkT-148009 as a mesylate salt, and ‘Sal’ refers to saline solution that replaces the drug solution in the indicated columns.

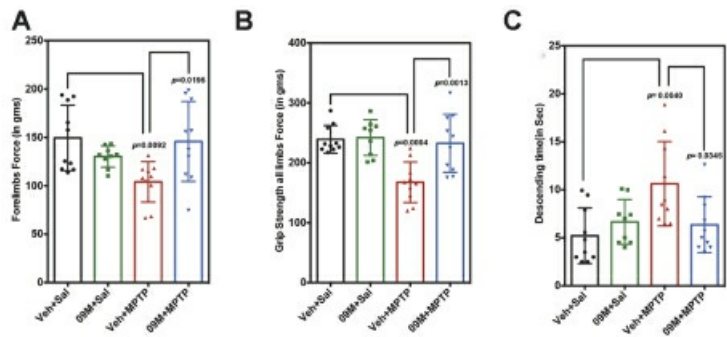


Fig. 8: Functional preservation of grip strength, forelimb strength and descent time in the pole test for mice treated with IkT-148009 in the presence of MPTP. Grip (A), forelimb strength (B) and pole descent times (C) were measured using standard methods. In these histograms, ‘Veh’ refers to the vehicle in which IkT-148009 was dissolved, ‘09M’ refers to IkT-148009 as a mesylate salt, and ‘Sal’ refers to saline solution that replaces the drug solution in the indicated columns. Although not shown, we have also seen preservation of dopamine levels in drug treated mice, consistent with the preservation of neural density (Fig. 2) and functional activity (this figure).

The degree of neuroprotection arising from IkT-148009 in this acute model is also reflected in the functional behavior of these animals (Fig. 8). In forelimb and grip strength, mice treated with IkT-148009 are nearly identical to control mice that have not been treated with the acute neurotoxin MPTP. These animals also have nearly normal descent times in the ‘pole test’, a test in which the mice are placed at the top of a two-meter pole and have to navigate their way vertically down the pole.

3. Functional Reversal in the GI Tract

GI dysfunction is among the most prevalent early signs of PD, usually involving irreversible constipation, difficulty emptying stomach contents (known as gastroparesis) and difficulty swallowing (known as dysphagia). To evaluate the ability of IKT-148009 to induce functional reversal in the GI tract, a transgenic mouse was created to express A53T specifically in the GI tract. Animals expressing A53T in the GI tract display a significant slowing in the time it takes for food to be processed from mouth to anus, known as the Whole Gut Transit Time, or WGTT. A53T mice display a nearly 3-fold slowing in WGTT relative to regular mice 3 months after A53T is expressed in the adult mouse (Fig. 9). While normal mice have a WGTT of just 165 minutes, this lengthens to nearly 500 minutes 3 months after A53T is introduced (Fig. 9). Mice treated with just 50 mg/kg/day beginning two months after A53T was introduced, on the other hand, have an average WGTT of just 219 min. If it weren't for the 6 outlier measurements (see cluster plot with blue shading to the right), the average for drug treated mice would be closer to 170 min, a nearly completely normal transit time.

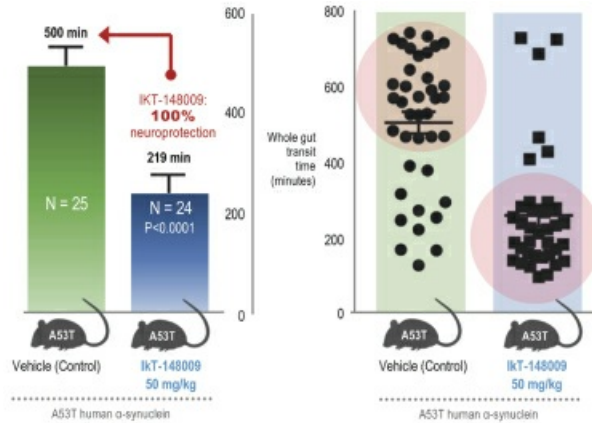


Fig. 9: The Whole Gut Transit Time (WGTT) measured in A53T and wild type human alpha-synuclein transgenic mice in the presence or absence of IKT-148009. The WGTT was measured after 3 months at either 50 or 150 mg/kg/day in mice expressing A53T-alpha-synuclein (only 50 mg/kg/day is shown, 150 mg/kg/day had similar results with an average of 254 min instead of 219 min). The control mice were a dosing solution, or vehicle, without the drug. The control allowed comparison of drug treated mice to mice that express the normal human alpha-synuclein as the only source of alpha-synuclein in their bodies. For each treatment group, the results were statistically significant relative to the no drug vehicle only treated controls with a $P < 0.0001$ in a Student's T-test.

When we evaluate the distribution of toxic alpha-synuclein in the gut, which we track with an antibody against pY39, therapeutic treatment with IkT-148009 results in clearance of pathological alpha-synuclein, evidenced by the loss of punctate green staining in the images at both 50 and 150 mg/kg treatment (Fig. 10). Thus, functional reversal in the gut is accompanied by clearance of toxic alpha-synuclein as a consequence of IkT-148009 treatment.

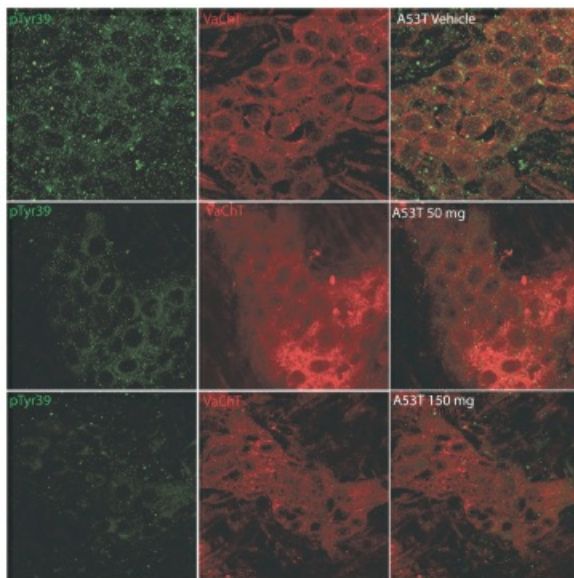


Fig. 10: Effect of IkT-148009 on the presence of pathological pY39 in the adult myenteric plexus of the PDA53T-a-syn mouse model. Fixed longitudinal muscle containing myenteric plexus (LM-MP) tissue from the A53T-a-syn transgenic mice from the three cohorts Vehicle, or the drug IkT-148009 at two different concentrations, 50 mg/Kg and 150 mg/Kg were immunostained with antibodies against pY39 (Rabbit Polyclonal; Green) and VaChT (Goat polyclonal; Red) and with appropriate secondary antibodies. The tissues were then mounted with Prolong Anti-fade and imaged under oil with 40X magnification with an Olympus FV3000rs confocal microscope. The VaChT labels all adult myenteric neurons that express the neurotransmitter and their populations account for almost 70% of adult myenteric neurons. Using the VaChT immunostaining to focus on the myenteric ganglia, we imaged the z-plane that focuses on the myenteric ganglia in the LM-MP tissues and used that plane to observe the presence of pY39 within the myenteric ganglia. Our representative images here show that the expectedly punctate immunostained pY39 protein is abundantly present in and around the neurons of the myenteric ganglia of the Vehicle-dosed A53T mice. However, both the low (50 mg/Kg) and high (150 mg/Kg) dose of the drug IkT-148009 nearly clears the presence of this pathological protein within the myenteric ganglia and their individual neurons.

We believe that these results in preclinical models establish that reversal of functional loss occurs in the gut just as it has been established in the brain. Functional recovery occurs relatively quickly in the gut, in less than 4 weeks of daily dosing, although we have not withdrawn drug after functional reversal to determine if treatment with IkT-148009 is curative. However, it is unknown whether these effects will be seen in humans following treatment with IkT-148009.

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Toxicology of IkT-148009 in rat and monkey

14-day toxicology studies in rats revealed no meaningful toxicity up to a No Observed Adverse Event Level, or NOAEL, of 50 mg/kg/day (equivalent to a human dose of 413 mg for a 60 kg adult) although pathology was observed in reproductive organs at this dose level consistent with previous observations for drugs in this class including Imatinib. The only new observation was a very slight (at 50mg/kg/day) or slight (at 200 mg/kg/day) hyperplasia of the bile duct in rat. In monkey, 14-day toxicology studies in rats revealed no meaningful toxicity up to a NOAEL of 31.2 mg/kg/day (equivalent to a human dose of 600 mg for a 60 kg adult). At the highest dose of 200 mg/kg/day, 5 of 10 females displayed up to 13% prolongation of the cardiovascular QTc interval that was reversible. Mild elevations in liver enzymes were seen at the NOAEL, but no reproductive organ pathology.

Clinical Development Strategy for IkT-148009

We filed two INDs with the FDA for IkT-148009. One IND focused on clinical endpoints in the brain and a second IND focused on quantitative endpoints in the GI tract using proprietary tests. We commenced clinical dosing on a Phase 1 Single and Multiple Ascending Dose (SAD and MAD, respectively) clinical trial in older and elderly healthy volunteers age 45 to 75 in February, 2021 and have dosed 40 patients in 4 cohorts to date. This study was intended to complete 8 dosing cohorts in the SAD with single doses ascending from 25 to 400 mg administered orally 1x/day, followed by 4 dosing cohorts in the MAD study, each of which would be dosed for 7 days orally, 1x/day. It was expected that this study would require 14 months to complete measures of Safety, Tolerability and Pharmacokinetics of IkT-148009 in these patients. The table below illustrates the unexpected observation of high clinical exposures at doses as low as 25 mg.

Clinical Pharmacokinetics IkT-148009 compared to therapeutic dose in animal models of progressive disease						
			$t_{1/2}$ (h)	t_{max} (h)	C_{max} (ng/mL)	AUC_{0-inf} (h*ng/mL)
IkT-148009	Mean	25 ¹	25.2	6	945	23200
Clinical N=6		mg/day				
IkT-148009	Mean	1.25 ¹	12.7	2.2	2562	19650
Therapeutic, mouse model N=5		mg/day				

¹ 25 mg/day in humans equivalent to 0.128 mg/day in mouse assuming a 60 kg human and 25 g mouse

At 25 mg, IkT-148009 exhibited a 25 hour half-life and an Area Under the Curve (AUC) exposure of 22,300ng-h/mL. This long half-life may grow longer when repeat dosing is initiated, as we believe the drug is likely to take longer to decay to background levels as we dose daily in patients. The AUC of IkT-148009 is 12-fold higher than the pharmacology comparator drug Imatinib from which IkT-148009 was designed. Indeed, this exposure is only seen for Imatinib above 200 mg in a SAD study, as described in the summary data for approval for Imatinib (Approval 21-335).

IkT-148009 may have a more favorable safety profile in humans than in either rats or monkeys at the same AUC. We observed no clinically significant adverse events in humans across four dosing cohorts.

A 25 mg oral dose also met our expectations for reaching therapeutic dosing limits. A 50 mg/kg daily oral dose, or 1.25 mg/day, in mouse efficacy studies reached nearly the same AUC as a 25 mg oral dose in humans. Thus, the currently available Phase 1 data indicates that a low oral dose to humans can reach the therapeutic exposures that were efficacious in animal models of human PD.

Collectively, these observations have allowed us to accelerate the Phase 1 study, shortening the study by 6 – 9 months, as we may no longer require 8 SAD cohorts and we have initiated MAD dosing as of this offering as illustrated in Fig. 11. Subject to discussions with FDA, we plan to initiate dosing in a Parkinson’s patient population as part of the Phase 1 MAD study.

For the planned Phase 2 study to follow this offering, we have only briefly outlined the Phase 2 design to the FDA and will need to develop complete protocols for FDA review and approval. We have proposed the primary endpoint in the brain to be a statistically meaningful reduction in the Universal Parkinson’s Disease

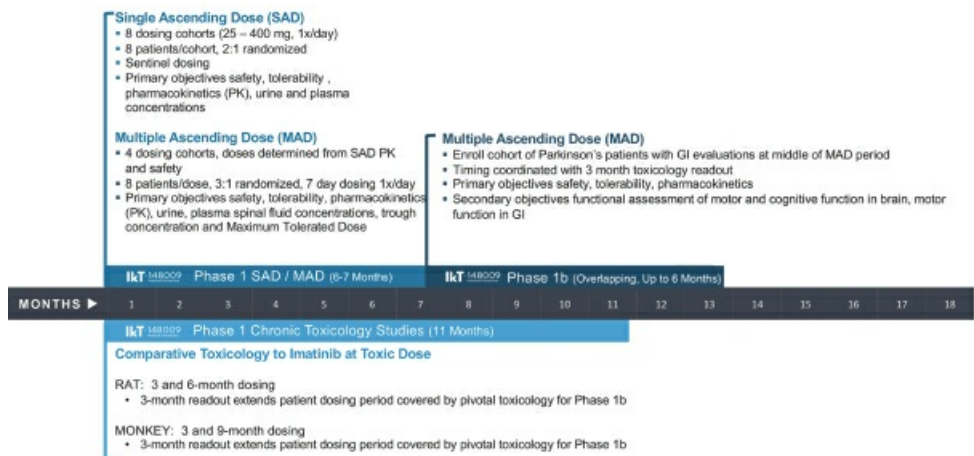




Fig. 11: Current Clinical Development Outline and Timeline

Rating Scale (UPDRS) over 12 months. Based on the outcomes of studies in animal models of progressive disease outlined above, it is possible that patients eventually lose response to levodopa if nothing is done to alter the course of their disease. By contrast, we believe that patients treated with IkT-148009 will have their disease halted, may see a progressive reduction in the need for symptomatic or supportive therapy and ultimately may not require symptomatic therapy if the functional reversal observed in the pre-clinical setting is observed in patients. We do not, however, know if any of these treatment outcomes will be observed in humans until clinical studies are completed.

In the gut, we will take a unique approach to seeking approval for the GI complications in PD patients. In the GI, prospective and retrospective data using a wireless motility capsule measuring WGTT, a battery of clinical assessment scores and recto-anal biopsies, which may provide pharmacodynamic data in patients for neurodegenerative disease. The combination of these measures of GI function represents a new approach to evaluating neurological function in PD patients with GI complications. We believe these quantitative measures in the GI tract could facilitate proof-of-concept trials in the future and provide quantitative endpoints from measures in the GI that could augment analysis of trials in the future and provide quantitative endpoints from measures in the GI that could augment analysis of therapeutic benefit in the brain. Trial design and the number of patients we intend to enroll in such studies will be discussed with the FDA in follow-up meetings, to include agreement on the use of GI endpoints in analyzing therapeutic benefit.

We believe simultaneous measures in the brain and GI tract offer an additional development advantage for us. The ability to restore normal GI function implies that PD patients may experience more normal bathroom and/or eating habits. We can think of no more fundamental improvement in quality of life than the ability to eat or to go to the bathroom normally, which is becoming a key metric of therapeutic benefit for PD.

IkT-001Pro: Validating our prodrug technology in stable phase Chronic Myelogenous Leukemia (CML)

				Clinical Development ¹				Biomarker		
Drug Target	Drug candidate	Modality	Disease Indication	Preclinical Development	Phase 1	Phase 2	Phase 3	Preclinical target engagement ¹	Clinical target engagement ¹	Can be used for patient selection ¹
Oncology										
BCR-Abl	IKT-001Pro	Small molecule	Stable-phase CML (orphan indication)		 505(b)(2) path to market			Validated	Validated	Yes

Market and Commercial Opportunity

IkT-001Pro is the first application of our prodrug technology that seeks to improve the oral absorption, reduce GI side effects and enhance the safety of active pharmaceutical ingredients. IkT-001Pro is a prodrug of the anti-cancer agent Imatinib, an FDA approved treatment for certain blood and stomach cancers. We plan to seek approval from the FDA for IkT-001Pro in stable phase CML as an orphan indication. In 2016, Imatinib became generic and up to eleven companies have been approved to sell generic Imatinib in the U.S. In 2019, sales for generic Imatinib were approximately \$300-500 million per year, indicative of a potentially robust commercial market for IkT-001Pro.

In non-human primates IkT-001Pro displayed a 5-fold higher NOAEL relative to Imatinib. This suggests that IkT-001Pro could reduce some side effects common to Imatinib therapy for blood and stomach cancers in patients. As a consequence, we believe we have an opportunity to compete with generic Imatinib sales in the U.S. market if IkT-001Pro completes clinical development and is approved by the FDA. To achieve this commercial goal, we will require implementation of an appropriate commercial strategy for prescribers, pharmacy benefit managers and payors. Primary research to validate our strategy with pharmacy benefit managers and payors suggests a commercial path exists, passing through generic Imatinib. IkT-001Pro, if approved, could also compete for market share from other first line therapies for CML. One of the approved indications for Nilotinib (marketed as Tasigna®), for example, is for treatment of CML in patients that are Imatinib intolerant. Nilotinib's label indicates it has serious cardiovascular adverse events. For those patients whose Imatinib-intolerance arises from on-dosing side effects, we believe they would elect to take IkT-001Pro might be viewed as an alternative therapy if IkT-001Pro is shown to relieve those side effects in clinical trials and approved by the FDA.

Development Strategy for IkT-001Pro

CML is a proliferation of myeloid cells in the bone marrow with an incidence of 1 – 2 cases per 100,000 persons, and accounts for approximately 15% of newly diagnosed cases of leukemia in adults. Prevalence of this disease has steadily grown over the past decade, with nearly 200,000 patients projected to be afflicted with this disease by 2050. Pathogenesis of CML is linked to a mutation in the c-Abl gene, referred to as BCR-Abl. BCR-Abl is a form of the c-Abl protein kinase that is always in the “on” state, and accounts for excessive accumulation of myeloid cells in the bone marrow and blood that is associated with leukemia. Inhibition of BCR-Abl with Imatinib suppresses tumor growth. In clinical practice, Imatinib is very successful at suppressing tumor growth with an 81% event-free survival rate and a 93% overall survival rate. However, 8-year follow-up studies revealed that only 55% of patients remained on therapy at 8 years, indicating that treatment failure grew over time. Treatment failures occur for a variety of reasons. We believe failure to adhere to the daily treatment regimen makes a significant contribution to treatment failure for Imatinib therapy. For example, nearly 50% of patients experience nausea, diarrhea and vomiting that are not well managed. Missing just 5 days of therapy in the first 12 months of treatment reduces the likelihood of reaching cure at the end of the fourth year of treatment by nearly 25%. Thus, while Imatinib remains the medication of choice for CML, we believe that GI distress and other on-dosing side effects of Imatinib therapy degrade patient adherence and lead to substantial additional medical costs, which can reach \$100,000 per patient in the U.S. One of the key objectives for IkT-001Pro is to restore all patients to 100% treatment compliance by suppression of the GI and other on-dosing side effects for both branded and generic Imatinib.

Pharmacology of IkT-001Pro in preclinical models

We believe many of the side effects that degrade adherence to Imatinib therapy arise from GI distress on absorption, along with degradation that occurs at the gut wall (so-called first-pass metabolism). IkT-001Pro is a chemically modified form of Imatinib, which is absorbed intact and enzymatically releases Imatinib in the blood (Table 1). Evaluation of the prodrug absorption and distribution in rats demonstrated that the exposure to Imatinib is significantly higher overall. We determine this by measuring the Area Under the Curve, or AUC, as illustrated in Table 1.

Table 1: Pharmacokinetic (PK) parameters in male rat at 3 mg/kg/day orally (n=3) and stability in human plasma for Imatinib prodrugs

Prodrug	T_{max} (hr)	C_{max} (nM)	AUC (nM-hr)	Elimination T_{1/2} (h)	Distribution volume (L/kg)	Prodrug t_{1/2} human Plasma (min)⁽¹⁾
Imatinib	2	323.3	1753	2.7	1.1	N/A
001Pro	4	387	2712	2.0	3	<5

(1) The half-life of the prodrug is essentially the same in rat, monkey and human plasma.

We have evaluated IkT-001Pro in a dose range finding study and in a pivotal 28-day GLP toxicology study in monkeys. One of the principal measurements we make in a toxicology study is the No Observed Adverse Event Level, or NOAEL. The NOAEL is the dosing level at which no meaningful toxicity is observed. For IkT-001Pro, the NOAEL is 5-fold higher for IkT-001Pro relative to Imatinib given alone. The higher NOAEL means that the prodrug drug suppressed some side effects that normally arise from Imatinib itself. In these studies, we observed that all the GI and other on-dosing side effects were suppressed at the NOAEL dose.

Efficacy of IkT-001Pro in preclinical animal models of leukemia

We measured the efficacy of Imatinib therapy versus the prodrug in a patient-derived model of leukemia by transferring the liquid tumor of a human patient into an immune-suppressed mouse, giving the mouse a human leukemia. When we compared the dose of IkT-001Pro in this animal model to the dose of Imatinib required to observe the same effect, we determined that we could deliver 15% less Imatinib than if we had dosed the animals with Imatinib alone (Fig 12).¹⁰ We believe these results suggest that IkT-001Pro delivers Imatinib into the body more efficiently than Imatinib alone.

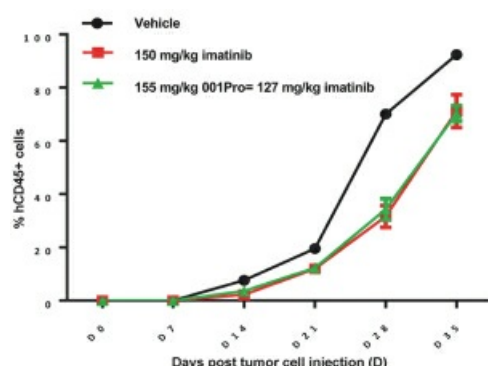


Fig. 12: Comparison of tumor control for Imatinib and IkT-001Pro. 150 mg/kg Imatinib or 155 mg/kg IkT-001Pro were dosed daily into 15 mice per group and compared to vehicle control. Dosing began on the 8th day after tumor cell inoculation into the tail vein with human, patient-derived leukemia cells, which could be followed with the cell surface marker CD45. As is readily apparent, tumor control by Imatinib and IkT-001Pro were identical even though IkT-001Pro delivered 15% less Imatinib relative to Imatinib alone. This is due to the mass difference between Imatinib and IkT-001Pro. These results confirm the observations made with respect to the AUC or drug exposure per unit mass of prodrug vs. Imatinib alone.

Clinical Development Strategy for IkT-001Pro in stable phase CML

Through pre-IND discussions with the FDA Division of Hematology, we believe approval of IkT-001Pro could be achieved through the 505(b)(2) regulation. Following manufacturing of the clinical batch, we anticipate filing the IND for IkT-001Pro in the third quarter of 2021. The FDA has suggested that a single ascending dose clinical study comparing the dose of IkT-001Pro to 400 mg Imatinib could be sufficient for the dose calibration program if we match the pharmacokinetic profile of the two drugs over 96-hours in healthy volunteers.

We will evaluate IkT-001Pro in the clinic to determine if IkT-001Pro has superior safety relative to Imatinib. In the pre-clinical setting, we have already compared Imatinib alone to a dose of IkT-001Pro to determine if Imatinib delivered as IkT-001Pro is safer than Imatinib alone. We observed that the NOAEL of Imatinib delivered as IkT-001Pro is 5-fold higher than for Imatinib alone. This suggests that Imatinib delivered as IkT-001Pro has safety benefits over Imatinib alone. In the clinic, we would complete dose calibration under the 505(b)(2) regulation to establish the dose of IkT-001Pro that is equivalent to that of 400 mg Imatinib in healthy volunteers; 400 mg Imatinib is the standard-of-care dose for treatment of CML in patients. Once we calibrate the dose of IkT001Pro that is equivalent to Imatinib 400 mg, and subject to agreements with the FDA for approval under the 505(b)(2) regulation, we plan to evaluate the safety benefit of IkT-001Pro in the post-

¹⁰ Jabbour E., Kantarjian H. (2014) Chronic myeloid leukemia: 2014 update on diagnosis, monitoring, and management. Am. J. Hematol.89:548-556.

market setting. The potential safety benefit of IKT-001Pro over Imatinib would be evaluated in stable phase CML patients using one of several designs under consideration, wherein patients on 400 mg Imatinib would be compared to the equivalent dose of IKT-001Pro and the side effects experienced in these patients on daily dosing would be recorded for up to 12 months.

Clinical and Research Phase Programs in Other Neurological Diseases

Our RAMPTM medical chemistry program has also identified additional development opportunities for other neurological diseases which includes Dementia with Lewy Body or DLB, Multiple System Atrophy or MSA and Progressive Multifocal Leukoencephalopathy or PML.

Dementia with Lewy Body (DLB)

DLB is a Parkinson's-like disease characterized by alpha-synuclein aggregates, c-Abl activation and alpha-synuclein aggregate chemical modification much like that found in Parkinson's Disease. DLB is diagnosed by observation of a progressive onset of cognitive impairment that may be followed by motor function deficits and characterized morphologically by widespread cortical and subcortical α -synuclein/ Lewy body plus β -amyloid and tau pathologies. The clinical features of DLB include cognitive impairment, parkinsonism, visual hallucinations, and fluctuating attention. PD and DLB are both Lewy Body disorders. PD and DLB share many features as the disease progresses, and therefore it is not surprising that PD and DLB share the involvement of alpha-synuclein aggregates and c-Abl activation. Most striking about DLB versus PD, however, is that DLB often occurs concomitant with the pathology associated with Alzheimer's Disease (AD), suggesting a mechanistic linkage between Parkinson's and Alzheimer's Disease. While it is possible to distinguish PD from DLB in the clinic using diagnostic procedures, it is not possible to create independent pre-clinical models for DLB and for PD. Unlike other alpha-synuclein-related disorders, such as MSA, there are no animal models that permit evaluation of cognitive function with no motor dysfunction. Therefore, we are using the properties determined for IKT-148009 to screen additional molecules from the 148x series and evaluating pharmacokinetics in animals to identify candidate(s) from the 148x series that share brain penetration, toxicology and other characteristics that are similar with IKT-148009. The development of an animal model to assess the therapeutic utility in DLB is not necessary because we believe the characteristics of a molecule suitable for treatment of DLB are similar to one used to treat PD given the significant overlap in disease pathology and clinical features. Rather, we are evaluating which of the 148x series molecules is the best candidate to follow IKT-148009 into the clinic and planning the pre-clinical studies which will be required prior to evaluating the molecule clinically in patients with a formal diagnosis of DLB.

Multiple System Atrophy (MSA)

Multiple system atrophy (MSA) is a neurodegenerative movement disorder affecting approximately 15,000 to 50,000 people in the United States. It occurs sporadically in the fifth or sixth decade of life with a variable combination of parkinsonian, cerebellar, and autonomic features that rapidly progress to dangerous morbidity. Research toward potential treatments for MSA, as with many rare diseases, has been limited, resulting in a paucity of knowledge regarding its underlying causes, and there are no currently effective treatments to halt pathological progression. Initial clues into the origins of MSA came from studying alpha-synuclein and its hallmark histopathology in the brains of patients with MSA. These studies established that MSA is characterized by the presence of glial cytoplasmic inclusions (GCIs) that reside predominantly in oligodendroglial cells. GCIs are comprised of abnormal conformations of alpha-synuclein, the same protein that accumulates in neurons and Lewy Bodies in Parkinson's disease (PD) and Dementia with Lewy Bodies (DLB). Finding similarities between MSA and PD is a complicated task, as alpha-synuclein mutations clinically and pathologically resemble MSA, while others have features of frontal lobe dementia with severe pathology. Further, some phenotypes of MSA have little or no clinically pertinent parkinsonism, and instead present with cerebellar ataxia or dysautonomia, most frequently as orthostatic hypotension. As we have shown in a recent publication (**Fig. 12**), MSA shares the hallmarks of c-Abl activation and alpha-synuclein chemical modification with Parkinson's Disease, thus we

believe that c-Abl inhibitor therapy is a promising treatment for this disease. We will pursue development of IKT-148009 for the treatment of MSA. We plan to submit an IND in the fourth quarter of 2021. It is our intention to cross-reference the Phase 1 data in PD patients. Subject to agreement with FDA, we believe the MSA clinical trial program could begin with a Phase 2 study.

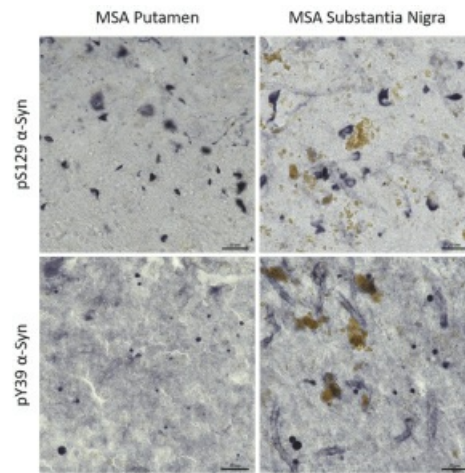


Fig. 12: GICs from human MSA patient brain contain Y39-phosphorylated and S129-phosphorylated alpha-synuclein aggregates. 40 μ m coronal sections of human postmortem brain from MSA patients with a diagnosis of “definite MSA” were immunostained using antibodies to detect pathological forms of alpha-synuclein, phosphorylated at Ser¹²⁹ (pS129 α -Syn) and phosphorylated at Tyr³⁹ (pY39 α -Syn). Putamen sections (left column) show positive staining of glial cytoplasmic inclusions (GICs, black/blue punctate staining) throughout the entire putamen with both pS129 and pY39. Nigral sections (second column from left) show positive staining of GICs (black/blue punctate staining) throughout the substantia nigra, in close vicinity to neuromelanin positive neurons (yellow-brown staining). Scale bars = 25 μ m.

Progressive Multifocal Leukoencephalopathy (PML)

PML emerged as an unusual form of cognitive decline during the AIDS epidemic of the 1980s, arising from the migration and lytic infection of the John Cunningham virus, or JCV, from its reservoirs in the kidney and bone marrow not the brain. With the advent of antiretroviral therapy that restored normal immune responses to viral infection in patients with HIV infection, the first reports of progressive multifocal leukoencephalopathy (PML) in patients since the era of the AIDS epidemic occurred during Phase 3 clinical trials evaluating natalizumab treatment for relapsing remitting multiple sclerosis. Natalizumab is a monoclonal antibody against α 4b1 and α 4b7 integrins that blocks lymphocyte surveillance in the brain and can prevent multiple sclerosis-related clinical relapses. The co-occurrence of PML and multiple sclerosis was unanticipated. Once JCV enters the CNS, JCV induces a lytic infection of oligodendrocytes and astrocytes, which is fatal in approximately 50% of cases. The initial prevalence of natalizumab-associated PML in patients with multiple sclerosis was estimated to be 1 in 1000. However, as more PML cases emerged among natalizumab-treated patients, with substantial morbidity in survivors, the prevalence of PML among patients treated with natalizumab for more than 24 months who also carried antibody evidence of JCV infection and previous immunosuppressant exposure, climbed to at least 1 in 70. Analysis of polyomavirus infection and reproduction in host cells revealed that polyomaviruses like JCV are dependent on c-Abl for viral entry into the cells it is going to infect.¹¹ This suggests to us that c-Abl

¹¹ Swimm AI, Bornmann W, Jiang M, Imperiale MJ, Lukacher AE, Kalman D. (2010) Abl family tyrosine kinases regulate sialylated ganglioside receptors for polyomavirus. *J. Virol.* 84, 4243-4251.

inhibitors could be an effective anti-viral strategy to block productive JCV infection inside and outside of its reservoirs in a living organism. We are working in collaboration with experts at Louisiana State University to explore this development opportunity.

Expertise and overall strategy

We have assembled a team of principals and advisors with deep scientific, clinical, business and leadership experience and expertise in drug development that includes neurodegenerative diseases. Our Founder and Chief Executive Officer, Milton H. Werner, Ph.D., is an internationally recognized scientist with a long history of conducting interdisciplinary research and executing on research programs in multiple therapeutic areas. Dr. Werner is a protein biochemist and structural biologist by training, enabling him and the team of principals and advisors we have assembled to develop and characterize a portfolio of novel c-Abl inhibitors and to rapidly determine their utility in a variety of model systems for specific diseases.

Dr. Werner is joined by Terence Kelly, Ph.D., a 20-year veteran of medicinal chemistry at Boehringer-Ingelheim, Roger Rush, Ph.D., who has led IND-enabling programs for ground-breaking medications, like the Hepatitis C compound portfolio of Idenix, which was sold to Merck & Co., and Dr. Surendra Singh who has extensive experience in process scale and commercial manufacturing of drug substances. We have engaged Clintrex Research Corporation, who is led by Karl Kieburz, M.D. and Warren Olanow, M.D., two of the leading clinical investigators in neurodegenerative disease. Warren Olanow, MD is now the Company's Interim Chief Medical Officer. Andrew McGarry, MD (Clintrex) is our clinical trial medical monitor and Cornelia Kamp, MPH (Clintrex) and Irena Webster, MPH (Inhibikase), direct clinical operations and clinical execution oversight and management.

Collaborations are central components of our strategy to build and advance our pipeline of product candidates. Through NIH research grants awarded to Dr. Werner, we have subcontracted research projects in the biochemistry of neurodegeneration and neurological infection to Johns Hopkins University, University of Massachusetts Medical School — Worcester Campus, University of Alabama at Birmingham and the Louisiana State University Shreveport. In oncology, we have subcontracted research work to the University of California, San Francisco and the CML Consortium and consult with clinicians at the Memorial Sloan-Kettering Cancer Center. Our research endeavors have been validated by private and public granting agencies, to include the Michael J. Fox Foundation, and the National Institute of Neurological Disease and Stroke, the National Cancer Institute and the National Institute of Allergy and Infectious Disease. We believe that accessing external innovation is important to our success and we plan to remain active in accessing external innovation through business development activities and awarding of private, state and federal grants through institutions such as NIH and DoD.

Our leadership team is complemented by leading clinicians and research investigators in the areas of neurodegeneration (Drs. Ted Dawson, Valina Dawson, Ken Marek, Jay Pasricha, Jeff Kordower, Karl Kieburz and C. Warren Olanow and Robert Hauser). We have research collaborations with Dr. Jeffrey Kordower of Rush University and Dr. Jay Pasricha of Johns Hopkins University and with Project ALS of Columbia University. Collectively, this group of collaborators and advisors represent what we believe is the cutting edge of the fields of neuroscience and neurodegeneration.

Our strategy is guided by three principles:

- **Identification and characterization of the pathway(s) governing neurodegenerative disease:** We select our therapeutic targets by identification and characterization of disease pathways that we believe drive neurodegenerative disease and elucidate the biochemistry of pathway proteins to enable small molecule targeting to treat PD and related disorders, often involving clinically validated targets.
- **Proprietary method of drug discovery in neurodegeneration:** We use our RAMPTM method to imprint the properties we desire from an approved medication onto a new molecular entity for

treatment inside and outside of the brain. Using RAMPTM, we believe we can establish the pharmacology profile of our product candidates using an existing medication as a template.

- **Delivering neurodegenerative treatments as a prodrug to improve pharmacology and safety:** A prodrug is a compound that, after administration, is metabolized by the body into a pharmacologically active drug. Our prodrug technology has been shown in animal models to suppress GI and other adverse events commonly associated with oral kinase inhibitors and improve drug absorption from the GI tract. We believe this technology enhances drug distribution into the target tissues, which we believe may improve safety and tolerability of our kinase inhibitors for neurodegenerative and other diseases. We must demonstrate any safety benefit using this prodrug technology in clinical trials in collaboration and consultation with the FDA.

We believe that the application of these principles will significantly increase the probability of our success and will shorten the time required to bring effective therapeutics to patients with neurodegenerative and other diseases.

Drug discovery and Delivery Technologies

Engineering Small Molecule Brain Delivery

Our RAMPTM drug discovery program used Imatinib as a template to design and discover a family of novel chemical entities with high potency against c-Abl, leading to IKT-148009. We showed in preclinical models that a subset of the molecules that we discovered using RAMPTM were more brain penetrant than Imatinib. We believe the specific modifications in the more brain penetrant RAMPTM molecules sterically hinder engagement of transporters that could suppress accumulation of drug in the brain. Thus, we believe RAMPTM could be further applied to predicting and developing next generation molecules with enhanced brain penetration without compromise of c-Abl inhibition. As part of our ongoing research and development effort, we have increased the ability to penetrate the blood-brain barrier by as much as 5-fold in preclinical models, enabling direct treatment in the brain following oral administration.

Enhance drug absorption through a prodrug technology

In addition to the design principles we have deployed to develop c-Abl inhibitors capable of maintaining therapeutic concentrations in the brain, we have also developed a delivery technology that suppresses GI side effects that occur on dosing with medications in this class. Using the anti-cancer agent Imatinib as a prototype, we believe that we have shown that formation of a carbonate-linked prodrug enables absorption of the active ingredient without induction of GI side effects, resulting in an increase in the NOAEL by 5-fold relative to Imatinib alone in non-human primates. The active ingredient we believe is more efficiently absorbed into the blood using this approach, which results in achieving therapeutic exposures with less drug administered. Since GI side effects can be common for drugs in this class and often discourage adherence to therapy, we believe this approach could be applied to any of the drugs we currently are developing for treatment of CNS disease and could be used to improve existing therapeutics in cancer as differentiated generics.

History of Business Operations and Key Events

We commenced operations in September 2008 as a Georgia limited liability company within-licensed intellectual property relating protein kinase inhibitors to the control of bacterial and viral infectious diseases. By 2015, we had developed our own portfolio of protein kinase inhibitors to treat bacterial and viral infections, including viral infections in the brain. During 2015, we also began our endeavors in developing product candidates for other diseases of the brain, including neurodegeneration. In 2020, we completed an Initial Public Offering and listed on the Nasdaq under the symbol 'IKT'. Key recent operational and financing milestones are:

- Between August 2008 and October 2008, the State of Georgia, through the Georgia Research Alliance, began financial support for the development of our underlying technologies for drug discovery and development of disruptive medications across multiple therapeutic indications, granting \$205,550.

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- In September 2009, the National Institute of Neurological Disease and Stroke, an Institute of the National Institutes of Health, awarded us \$265,846 to begin development of small molecule treatments for viral infections in the brain.
- In September 2011, we executed a promissory note for the second tranche of a total of \$250,000 of an economic development loan from the State of Georgia through the Georgia Research Alliance.
- In August 2012, we entered into a contract for \$2,731,823 with the Department of Defense to develop our disruptive approach to treating infectious disease across viral and bacterial infections as a Medical Counter Measure (MCM).
- In September 2013, we amended our contract with the Department of Defense to increase the total value of the contract to \$7,129,614 to expand our development of MCMs.
- In June 2015, the National Institute of Allergy and Infectious Disease, an Institute of the National Institutes of Health, awarded us an additional \$1,540,897 to continue our development of small molecule therapeutics to treat JCV infection in the brain.
- In March 2017, the National Institute of Allergy and Infectious Disease, an Institute of the National Institutes of Health, awarded us an additional \$2,000,000 to continue our development of small molecule therapeutics to treat JCV infection in the brain.
- In March 2017, the Michael J. Fox Foundation awarded us \$433,729 to screen our novelc-Abl protein kinase inhibitors in a mouse model of Parkinson's Disease.
- In June 2017, we believe we came to an understanding with the FDA on the requirements for approval ofIkT-001Pro, a prodrug of Imatinib, for the treatment of stable-phase patients with CML using a product with a potential for significant reduction of side effects under the FDA 505(b)(2) regulations.
- In September 2017, the National Institute of Neurological Disease and Stroke, an Institute of the National Institutes of Health, awarded us \$3,108,583 to advance our novel c-Abl inhibitors as disease modifying therapies for Parkinson's Disease and related disorders.
- In May and September 2017, former members of our board of directors invested an aggregate of \$150,000 in convertible debt instruments to further advance the Parkinson's Disease programs.
- In March 2018, we opened our pre-IND discussion with the FDA for the application of our novelc-Abl inhibitor IKT-148009 for the treatment of Parkinson's Disease.
- In May 2018, outstanding convertible debt in the aggregate amount of \$339,729 was converted into 81,081 shares of our common stock at \$4.79 per share.
- In May 2018, warrants were exercised for the purchase of 67,405 shares of our common stock, resulting in aggregate proceeds of \$60,144. In a simultaneous transaction, 29,178 shares of our common stock were purchased by an investor at \$4.79 per share.
- In June and July 2018, a total of 204,870 shares of our common stock were purchased by an investor at \$4.79 per share.
- In September 2018, the National Cancer Institute, an Institute of the National Institutes of Health, awarded us \$2,002,000 to advance IkT-001Pro into the clinic as a novel therapy to treat stable-phase CML.
- In September 2018, the FDA designated IKT-001Pro as an Orphan Drug for treatment of stable-phase CML.
- In February 2019, we submitted two INDs for the application ofIkT-148009 in neurodegenerative disease to the FDA. One IND is for treatment of Parkinson's Disease and the second IND is for the treatment of GI complications in Parkinson's patients.

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- In March 2019, the FDA cleared the first in human study to commence in elderly healthy volunteers for IKT-148009. First dosing of patients for treatment of PD is expected to commence shortly after the conclusion of this offering. Clinical development of IKT-148009 for the GI complications in PD patients will cross-reference the first human study of IKT-148009 for the treatment of PD.
- In September 2019, the National Institute of Neurological Disease and Stroke, an Institute of the National Institutes of Health, awarded us \$3,100,838 to further advance our novel c-Abl inhibitor IKT-148009 into chronic pivotal toxicology studies for Parkinson's Disease and related disorders.
- In December 2020, we completed and Initial Public Offering of 1,800,000 of our Common Stock for \$10.00 per share.
- In February 2021, we initiated dosing of IKT-148009 in a Phase 1 trial enrolling older and elder healthy volunteers to measure the safety, tolerability and pharmacokinetics of our drug in patients of a similar age range as Parkinson's patients.
- In April 2021, we accelerated our Phase 1 trial to initiate Multiple Ascending Dose cohorts and began the process of incorporating Parkinson's patients into these dosing cohorts.

We do not have any products approved for sale and have not generated any product revenue since our inception. Historically, we have funded our operations primarily through private, state and federal contracts and grants. Since 2017, we augmented grant and contract revenue with equity sales of common stock to members of our board of directors and others. From inception through the date of this prospectus, we have raised aggregate cash proceeds of approximately \$39.8 million from private, state and federal contracts and grants and equity sales of common stock.

We have incurred significant operating losses to date and expect to continue to incur operating losses for the foreseeable future. Our ability to generate product revenue will depend on the successful development and eventual commercialization of IKT-001Pro, followed by successful development of IKT-148009 and related molecules for one or more of our product candidates in Parkinson's Disease and related indications. Our net losses were \$2,847,894 and \$5,722,983 for the years ended December 31, 2020 and 2019, respectively. As of December 31, 2020, we had an accumulated deficit of \$15,031,624. We expect to continue to incur significant expenses and operating losses as we advance our c-Abl inhibitor programs through preclinical and clinical trials; broaden and improve our drug discovery and delivery technology platforms; acquire, discover, validate and develop additional product candidates; obtain, maintain, protect and enforce our intellectual property portfolio; and hire additional personnel. In addition, upon the completion of this offering we expect to incur significant additional costs associated with operating as a public company.

Regulatory and Clinical Experiences

From September 2014 through September 2016, we conducted two non-interventional clinical studies to inform our research on the risk, development, and treatment of PML. The results of one of the studies was published in the *Journal of Neurovirology*.¹² In 2016, the FDA approved protocols allowing us to conduct clinical trials with the use of non-Inhibikase marketed products to treat PD. We did not conduct these studies based on our decision to pursue development of IKT-148009. In February 2021, we began our Phase 1 trial of IKT-148009 in older and elderly healthy volunteers to initiate clinical development of our lead candidate for Parkinson's and related disorders.

Federal Contracts and Grants

We have secured a number of grants from the United States Federal Government through the National Institutes of Health, or NIH. These grants supported most of the funding needed for our historical research and

¹² Werner, M.H. and Huang, D. (2016) Natalizumab-treated patients at high risk for PML persistently excrete JC polyomavirus. *J. Neurovirol.* 22:871.

development activities. Funding through grants is nondilutive to our equity and does not need to be repaid, so long as we comply with the conditions of the grant. In connection with Federal government funding, the government retains ‘march-in’ rights in connection with these grants, which is a non-exclusive right to practice inventions developed from the grant funding. As we conduct our business in the future, we may expect to seek and use additional NIH funding through grant opportunities. No assurance can be given that we will obtain any grants that may be available within our areas of research and development.

Since 2009, we have received six grants from the NIH totaling \$10,053,365, to support the development of the RAMPTTM drug discovery process and the application of the output of RAMPTTM to therapeutic indications in neurodegenerative disease and infectious disease. Since 2017, we have received two grants from the NIH totaling \$2,286,778, to support the development of the Company’s prodrug platform and oncology applications. Under these NIH grants, we must disclose to the Federal government the research methods and outcomes of our research endeavors and patent rights and are subject to the government’s march-in rights as they relate to intellectual property. As part of our reporting requirement, we must conduct independent audits of expenditures and file the outcomes of these audits with the NIH and the Department of Health and Human Services. These grants do not carry a payback provision unless there is a material breach or other transgression as it relates to use of funds. To date, we have not been found to have breached the terms of any NIH grant.

We have received one contract from the Department of Defense, or DoD, totaling \$7,129,614, to develop so-called Medical Counter Measures, or MCMs, to attempt to establish whether currently marketed inhibitors of c-Abl could act as multi-pathogen anti-infectives for bioterrorism defense. Under the terms of the DoD contract, the Company may file intellectual property related to the outcomes of the research endeavor subject to the government’s march-in rights. The expenditures incurred under this contract were subject to annual audits by the Defense Contract Audit Agency, or DCAA, and compliance with federal regulations by the Defense Contract Management Agency, or DCMA. To date, we have not been found to have breached or otherwise violated any terms of the contract, which ended November 2015.

We have received economic development grants and loans totaling \$455,550 through the Georgia Research Alliance, or GRA, a not-for-profit entity of the State of Georgia. Under the terms of these grants and loans, we had to in-license intellectual property from a State of Georgia research university, such as Emory University, and attempt to translate this intellectual property into a useful medical product. As part of the terms and conditions of these grants and loans, the Company had to meet certain development milestones or establish that the in-licensed technology could not lead to a useful medical product. We complied with all of the terms of these grants and loans. The GRA loans could further be converted into company stock, based on the fair market value of our common stock at the time of conversion. GRA elected to convert the outstanding amount on its two loans on May 31, 2018 into 47,318 shares of our common stock.

Material Agreements

Emory University

In June 2010, we entered into a license agreement, or the Emory License, with Emory University, or Emory, to develop one or more products. These products are related to patents filed by Emory directed to methods using the active ingredient in the anti-cancer agent Imatinib, as an anti-infective. We believe this ingredient is capable of treating bacterial and viral infections in the brain with a single agent at fixed dose through c-Abl protein kinase inhibition. In addition to a patent portfolio related to the use of Imatinib, additional patents were licensed to us that related to a portfolio of compounds, many of which were novel. These compounds were designed to inhibit c-Abl in patients for a therapeutic purpose. These patents formed the starting point for our RAMPTTM drug discovery program, although none of the compounds described in the licensed patents are structurally similar to any of the molecules designed and developed through RAMPTTM.

The Emory License grants us an exclusive, worldwide, sublicensable license under patent rights related to the application of Imatinib or a series of novel analogs for the treatment of infections caused by both viruses and

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bacteria that utilize c-Abl protein kinase to reproduce in human hosts. The Emory License also includes a right of first offer for us to license from Emory certain improvement technologies related to the licensed subject matter. Unless sooner terminated as provided in the agreement, the term of the Emory License is until the later of 10 years or until the expiration of the patent rights, which range from 2025 through 2027, depending on the specific application.

We have certain obligations under the Emory License, which include using commercially reasonable efforts to develop and commercialize at least one licensed product under the patents and achieving certain milestones such as filing an IND, proof-of-concept clinical trial, Phase III trial and NDA filing for a licensed product. We have complied with all requirements imposed by the license on product development. We are also obligated to reimburse Emory for pre-existing and ongoing costs incurred by Emory related to the filing, prosecution and maintenance of the licensed patents. These patents are controlled by Emory, although we have the right to review copies of all filings and correspondence related to such prosecution and maintenance. As of the date of this prospectus, we owe Emory approximately \$100,000 for such incurred costs.

As partial consideration for the Emory License, we issued 393,370 shares of our common stock to Emory. In addition, we are obligated to pay to Emory a royalty of a low single-digit percentage of annual net sales by us, our affiliates and our sublicensees of licensed products and licensed services that are covered by a valid claim of the licensed patent rights at the time and in the country of sale. Minimum annual royalties in the first three years after the first sale of a licensed product are \$10,000, \$20,000, and \$40,000, respectively, and remain at \$40,000 thereafter, for as long as the licensed patent rights are protected by valid claims in any such particular country of sale. On a country-by-country basis, upon expiration of the last valid claim of the licensed patent rights covering such licensed product or licensed service in such country, our license becomes royalty-free with respect to such country.

If one of the compounds subject to the Emory License proceeds to clinical development to treat infectious disease, we are obligated to pay potential total milestone payments of \$280,000 based upon achievement of certain preclinical, clinical and regulatory milestones. In addition, we are required to pay to Emory a percentage of the payments that we receive from sublicensees of the patent rights licensed to us by Emory ranging from low single-digit to low double-digit percentages of the payments received by us under such sublicense and will be based upon the clinical stage of the product at the time of the sublicense.

In the event of third party infringement of the licensed patents, we have the right but not the obligation to file suit, at our cost, against the third party infringer. Upon settlement or judgement, any punitive or exemplary damages will be shared, after payment of costs, 70% to us, and 30% to Emory; compensatory damages, after payment of costs, will be treated as sales of licensed product, where we would pay Emory at the standard royalty rate. In the event we choose not to bring suit, Emory may do so, at their cost, and any damages would be shared 95% to Emory, 5% to us.

We entered into an additional license agreement with Emory on June 8, 2010, for intellectual property related to noscapine and noscapine derivatives for the treatment of infections caused by both viruses and bacteria that are sensitive to noscapine treatment. As partial consideration for the license, we issued 437,078 shares of our common stock to Emory. This additional license was terminated on May 29, 2013 due to our inability to demonstrate any commercially viable applications of noscapine to treat any viral or bacterial infection. No financial obligations following the termination of this license remain.

Emory may terminate the Emory License with ninety (90) days' prior written notice upon the occurrence of certain events, including a payment default by us, an uncured material breach by us, the cessation of our business or our insolvency, liquidation or receivership. We can terminate the Emory License at our convenience at any time with ninety (90) days' prior written notice. After termination, if Emory notifies us of the existence of a third party with a bona fide interest in licensing any of the Licensed Products (as defined in the Emory License) for which we possess any Development Information (as defined in the Emory License), we must make such

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information available to Emory and such third party and we use commercially reasonable efforts to grant to such third party a license for that information. In the event of any termination, we are obligated to return to Emory all tangible materials covered by the licensed patents and the related technology and must cease any manufacture or sale of the Licensed Products (as defined in the Emory License), except any sale in the ordinary course of business for a period of six months after such termination subject to satisfaction of our monetary obligations to Emory including payment of any applicable royalties.

Sphaera Pharma Pte. Ltd.

On March 2, 2012, we entered into a collaborative research and development agreement, or the Sphaera Agreement, with Sphaera Pharma Pte. Ltd., or Sphaera, to collaborate on the development of the prodrug technology to be applied to protein kinase inhibitors for oncology and non-oncology indications. Under the terms of the Sphaera Agreement, each party would retain its pre-existing intellectual property, but any intellectual property conceived or reduced to practice under and certain results arising from the Sphaera Agreement would be assigned to us. On October 5, 2012, we and Sphaera amended the Sphaera Agreement to reflect joint patent applications in the U.S. and India by us and Sphaera for a series of novel compounds. While the underlying intellectual property would be jointly owned, we have the exclusive right to commercialize thirteen of the twenty-four linkers detailed in the filed patent applications, collectively, the Company Compounds, including the linker attached to Imatinib that comprises the IkT-001Pro oncology product, with the remaining nine linkers owned by Sphaera, collectively, the Sphaera Compounds. Sphaera has the right to develop the Company Compounds for oncology indications, but may not commercialize the Company Compounds unless we abandon the Company Compounds. We have notified Sphaera that we do not intend to abandon the Company Compounds. We do not currently have the right to develop the Sphaera Compounds. Additionally, if either party files an IND for a Company Compound that has been abandoned by the other party for an oncology indication in humans, the non-filing party is prohibited from developing such Company Compound. However, only we have the right to commercialize a Company Compound unless we formally abandon our interests.

The prosecution of patents related to the Company Compounds, which includes the prodrug technology, are the responsibility of the Company.

As consideration for its services, Sphaera has received a fixed fee of \$160,000 and is entitled to the following milestone payments upon achievement of specified milestones:

Milestone Event	Payment
First dosing of patients in US Phase 1 trial	\$ 250,000
US Phase 1 trial completion with endpoints met	500,000
US Phase 2 trial completion with endpoints met	875,000
FDA Approval	4,000,000
Total potential milestone payments	<u>\$ 5,625,000</u>

No milestone payments have been made to Sphaera, and the Company does not anticipate that any milestone payments will be made to Sphaera within the next six months. Sphaera is also entitled to royalty payments of a percentage of annual net sales and sublicenses ranging in the mid-single digits.

Other Agreements

Consulting Agreements

Our non-employee Directors, non-employee management and non-employee technical staff have signed multi-year consulting agreements that provide for protections of intellectual property, trade secrets and ensure consistent commitment to Company research and development activities. These agreements provide a scope of work, reimbursement for incurred costs of travel and equity compensation.

Clinical Research Organization Agreements

Our clinical research organization partnership is with Cognitive Research Corporation, or CRC, through a Masters Services Agreement that includes medical, analytical and pharmacy support services along with clinical research management and data handling according to a statistical analysis plan, although CRC may not be retained for future trials depending on the needs of future individual programs. We use the Hassman Research Institute as a single clinical evaluation site which is managed by CRC and Inhibikase clinical development staff. Our clinical development team is formed, in part, by two physicians and a clinical research manager employed by Clintrex Research Corporation and under contract to us, who have specialized expertise in clinical trial development and execution for Parkinson's Disease research.

cGMP Manufacturing

Our chemical manufacturing organization is STA Pharmaceutical US LLC, a subsidiary of WuXi, AppTec Co., Ltd., which is based in China and provides process scale development and production of active pharmaceutical ingredients. Formulation and finishing services are provided through contracts on an as-needed basis, including current Good Manufacturing Practice or cGMP manufacturing of active pharmaceutical ingredients.

Sponsored Research Agreements

We regularly enter into agreements with academic and research institutions under which the institution agrees to perform certain testing and research for us in exchange for incremental fee payments, or the Sponsored Research Agreements. These Agreements allow us to explore the potential utility of our compounds for therapeutic indications we wish to pursue. We have previously entered into Sponsored Research Agreements with Johns Hopkins, University of Massachusetts Medical School — Worcester Campus and Louisiana State University, Shreveport, and, following the submission of an NIH Small Business Innovation Research grant related to therapeutics development for MSA, intend to negotiate and enter into a Sponsored Research Agreement with Rush University, collectively, the Institutions. The scope of work of these Sponsored Research Agreements are derived from the associated grants, in which the sponsored project is a subcontract to the main grant in which the Company is the primary party and Dr. Werner is the principal investigator. Incremental fee payments are due to the Institutions on a monthly or quarterly basis, and certain payments depend on the completion by the Institutions of testing and research milestones. The Sponsored Research Agreements contain estimated completion dates which may be extended by written agreement of the parties. Each Sponsored Research Agreement may be terminated by either party on 30 days written notice, and upon termination we must reimburse the applicable Institution for all costs and reasonably incurred financial commitments, regardless of which party initiates the termination. Under the Sponsored Research Agreements, we retain all rights, title and interest in any information designated as purchaser property, as defined in the Sponsored Research Agreements. We own exclusively, and retain all right, title and interest in and to, our property provided as part of any Sponsored Research Agreement. Any and all of our property remains our sole property and will be used by an Institution solely in performing the research contemplated in the Sponsored Research Agreement. The relevant Institution retains all right, title and interest in and to its inventions, discoveries, material and improvements, that were in existence prior to execution of a Sponsored Research Agreement. The relevant Institution does not acquire rights in our compounds as a result of sponsored research. We are not required to license any rights related to our compounds as a result of sponsored research and we own the results of sponsored research without restriction on their use.

In collaboration with Dr. Jeffrey Kordower of Rush University Medical Center and a member of the Company's scientific advisory board, we have begun the development of a novel c-Abl inhibitor therapeutic for MSA. The Company conducted preliminary work in collaboration with Rush University Medical Center to measure whether the hallmark of c-Abl modification of alpha-synuclein as seen in PD also occurs in MSA. Our findings were published in *Neurobiology of Disease* (11). Our findings formed the basis of a new NIH grant

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application which is awaiting a funding decision to fund therapeutic dosing studies with several of our 148x candidate molecules that derive from our RAMP™ discovery program; separately we intend to advance IKT-148009 into MSA in a Phase 2 efficacy trial following this offering and the completion of our ongoing Phase 1 trial with IKT-148009. The NIH grant, if awarded, includes a subcontract to Rush University Medical Center that will be negotiated once the NIH award is granted to the Company. We intend to continue and conduct this research with or without an NIH grant.

Manufacturing

We believe it is important to our business and success to have a reliable, high-quality preclinical and clinical drug supply. As we mature as a company and approach clinical and then commercial stage operations, securing reliable high-quality commercial drug supply will be critical.

We do not currently own or operate facilities for product manufacturing, storage, distribution or testing.

We rely on third party contract manufacturers, or CMOs, to manufacture and supply our preclinical and clinical materials to be used during the development of our product candidates. We have established relationships with several CMOs, including Agno Pharmaceuticals, LLC and PepTech Corporation, both in China, and we have contracted for cGMP manufacturing in the United States with STA Pharmaceuticals Co., Ltd., a subsidiary of WuXi AppTec Co., Ltd., which is based in China.

We do not currently need commercial manufacturing capacity. When and if this becomes relevant, we intend to evaluate both third party manufacturers as well as building out internal capabilities and capacity. We may choose one or both options, or a combination of the two.

Commercialization Plan

We do not currently have any approved drugs and we do not expect to have any approved drugs in the near term. Therefore, we have no sales, marketing or commercial product distribution capabilities and have no experience as a company in marketing drugs. However, members of our board of directors have commercial experience and we have conducted a full commercial opportunity assessment for our lead product for PD in the U.S. market. We may develop one or all of our products and commercialize them ourselves, or we may license or form partnerships with other companies for commercialization of our products in the future.

Competition

The pharmaceutical industries, including in the neurodegenerative disease field, are characterized by rapidly advancing technologies, strong competition and an emphasis on intellectual property. We face substantial competition from many different sources, including large and specialty pharmaceutical companies, academic research institutions, governmental agencies and public and private research institutions. We believe that the key competitive factors affecting the success of any of our product candidates will include efficacy, safety profile, method of administration, cost, level of promotional activity and intellectual property protection.

Our product candidates for treatment of neurodegenerative diseases will compete with approved treatments as well as other therapies that may be in clinical or preclinical development or that have yet to be discovered. Historically, approved treatments for PD and related neurodegenerative disorders treat the symptoms of such diseases rather than halting or slowing the progression of the disease. We are not in the business of treating symptoms of disease. We intend to halt or slow the progression of the disease, which is known as disease modification and our product candidates are intended to modify disease. We believe that our product candidates, if approved by regulatory agencies in the U.S. and abroad, will compete with other potential therapies intended to halt or slow the progression of neurodegenerative disease that are being developed by a number of companies and institutions. Several large and specialty pharmaceutical companies, including Prothena Corporation plc,

Roche Holdings AG, Biogen Inc., Neurimmune Holding AG, UCB S.A., Neuropore Therapies, Inc., Sanofi S.A., and Takeda Pharmaceutical Company Ltd. are developing potentially disease modifying therapeutics for PD and are in various stages of clinical trials. Denali Therapeutics Inc. and Prevail Therapeutics Inc. are pursuing treatments for specific genetic defects that could prevent onset of disease or affect progression in Parkinson's patients. In addition, a number of companies have developed c-Abl inhibitors for oncology and any one of them could be in possession of an inhibitor that could be used for clinical development for neurodegenerative diseases. These include Novartis AG, Bristol-Meyers Squibb Company, Boehringer-Ingelheim GmbH and GlaxoSmithKline plc. Two companies, Sun Pharma Advanced Research Company Ltd. (SPARC) and 1st Biotherapeutics, Inc., have initiated clinical studies with proprietary c-Abl inhibitors for PD using molecules initially developed for treatment of blood cancer(s). In addition, we believe Botox® coupled with physical therapy is being explored in physician-led trials for neurogenic constipation, but we are not aware of any formal development programs by other companies.

Intellectual Property

The proprietary nature of, and protection for, our product candidates, processes, and know-how are important to our business. Our success depends in part on our ability to protect the proprietary nature of our product candidates, processes and know-how, to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary rights. We seek and maintain patent protection in the United States and internationally for our product candidates and other technology. We endeavor to patent or in-license technology, inventions and improvements that we consider important to the development of our business. In addition to patent protection, we intend to use other means to protect our proprietary rights, including pursuing terms of marketing or data exclusivity, orphan drug status (if applicable), and similar rights that are available under regulatory provisions in certain territories, including the United States, Europe and Japan. We also rely on trade secrets, know-how and continuing innovation to develop and maintain our competitive position.

For our product candidates, we generally pursue patent protection covering compositions of matter and methods of use. However, given that the development of our technology and product candidates is at an early stage, our intellectual property portfolio with respect to certain aspects of our technology and product candidates is also at an early stage. As further described below, we have filed or intend to file patent applications on various product candidates for composition of matter and other aspects of our technology and product candidates, and as we continue the development of our product candidates, we intend to identify additional means of obtaining patent protection that would potentially enhance commercial success, including protection for additional methods of use, formulation or manufacture.

We cannot be certain that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents granted to us in the future will be commercially useful in protecting our technology. Any of our intellectual property and proprietary rights could be challenged, invalidated, circumvented, infringed or misappropriated, or such intellectual property and proprietary rights may not be sufficient to permit us to take advantage of current market trends or otherwise to provide competitive advantages. For more information, please see "Risk Factors — Risks Relating to Intellectual Property."

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. The patent expirations reported below assume the patent is not rendered invalid or unenforceable by legal action and that all required fees are timely paid. In the United States, a patent may be entitled to Patent Term Adjustment for Patent Office delay. Where known, this has been included in the expiration dates described below. Further, in the United States, the patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent

term extension is related to the length of time the drug is under regulatory review. Patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent applicable to an approved drug may be extended and the extension can only be obtained for patents covering the approved drug, a method for using it, or a method for manufacturing it. Similar provisions are available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our eligible products receive FDA approval, we expect to apply for patent term extensions on patents covering those products. We plan to seek patent term extensions to any of our issued patents in any jurisdiction where these are available; however, there is no guarantee that the applicable authorities, including the FDA in the United States, will agree with our assessment of whether such extensions should be granted, and if granted, the length of such extensions.

All of our novel and in-licensed compounds were funded in whole or in part by the U.S. government and are therefore subject to federal march-in rights. When new technologies are developed with U.S. government funding, the U.S. government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the U.S. government to use the invention or to have others use the invention on its behalf, commonly referred to as march-in rights. For more information regarding the risks related to our intellectual property, see “Risk Factors — Risks Related to Our Intellectual Property.”

As of June 1, 2021, our patent portfolio included: (i) seven issued patents and two pending patent applications in the United States and (ii) five issued foreign patents and ten pending foreign patent applications. Patents issuing from the applications in this portfolio, if granted, will expire between 2033 and 2037, not taking into account any potential patent-term adjustments or extensions that may be available in the future.

One family of patents and applications covers compositions of matter for IkT-001Pro and related chemical compounds, as well as methods of using those compositions. This family includes two issued U.S. patents: U.S. Patent No. 9,487,500, which claims a genus of compounds including IkT-001Pro, and U.S. Patent No. 9,907,796, which claims methods of using a genus of compounds, including IkT-001Pro, to treat certain tumoral disease and certain infectious diseases. These U.S. Patents will expire between 2033 and 2034, not including any potential patent term extensions. This family does not include any pending patent applications in the U.S. Outside the U.S., this family includes issued patents in Europe, Japan, and Australia, and pending patent applications in Japan and Canada. Outside the U.S., patents issuing from the applications in this family, if granted, will expire in 2033, not taking into account any potential patent term adjustments or extensions that may be available in the future. This family of patents and applications is jointly owned by us and Sphaera. Under the terms of our agreement with Sphaera, described above under “— Material Agreements — Sphaera Pharma Pte. Ltd.” we have the exclusive right to commercialize certain compounds disclosed in these applications, including IkT-001Pro, for cancer treatments.

Two families of patents and applications cover compositions of matter for IkT-148009 and IkT-01427, the IkT-148x portfolio, and methods of use relating to those compositions. Patents issuing from the applications in these families, if granted, will expire between 2036 and 2037, not taking into account any potential patent-term adjustments or extensions that may be available in the future. These families include five issued U.S. patents and two pending U.S. patent applications. The issued U.S. patents, U.S. Patent No. 9,828,370, U.S. Patent No. 10,118,923, U.S. Patent No. 10,316,031, U.S. Patent No. 10,344,027, and U.S. Patent No. 10,906,896, will expire in 2036, not including any potential patent term extensions, and include claims that cover compositions of matter for IkT-148009 and IkT-01427, as well as claims that cover methods of using those compositions to treat certain cancers and certain infectious diseases. Outside the U.S., these families include issued patents in Japan and Australia, and pending patent applications in Japan, Australia, Canada, and Europe. These families are solely owned by us.

We hold a license from Emory University to (i) one issued patent in the United States and (ii) fourteen issued foreign patents. These patents cover methods of treating pathogenic infections with certain tyrosine kinase inhibitors, not including IkT-148009 and IkT-01427, and will expire between 2025 and 2028.

In addition to patent protection, we also rely on trade secrets, know how, other proprietary information and continuing technological innovation to develop and maintain our competitive position. We seek to protect and maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. Our agreements with employees also provide that all inventions conceived by the employee in the course of employment with us or from the employee's use of our confidential information are our exclusive property. However, such confidentiality agreements and invention assignment agreements can be breached and we may not have adequate remedies for any such breach. For more information regarding the risks related to our intellectual property, see "Risk Factors — Risks Related to Our Intellectual Property."

The patent positions of pharmaceutical companies like ours are generally uncertain and involve complex legal, scientific and factual questions. Our commercial success will also depend in part on not infringing upon the proprietary rights of third parties. It is uncertain whether the issuance of any third party patent would require us to alter our development or commercial strategies, or our drugs or processes, obtain licenses or cease certain activities. Our breach of any license agreements or our failure to obtain a license to proprietary rights required to develop or commercialize our future products may have a material adverse impact on us. If third parties prepare and file patent applications in the United States that also claim technology to which we have rights, we may have to participate in interference or derivation proceedings in the USPTO to determine priority of invention. For more information, see "Risk Factors — Risks Related to Our Intellectual Property."

Government Regulation

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending NDAs, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- approval by an independent IRB at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with cGCPs, requirements to establish the safety and efficacy of the proposed drug product for each indication;

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- submission to the FDA of an NDA;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practice requirements and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- satisfactory completion of FDA audits of clinical trial sites to assure compliance with cGCPs and the integrity of the clinical data;
- payment of user fees and securing FDA approval of the NDA; and
- compliance with any post-approval requirements, including the potential requirement to implement a REMS, and the potential requirement to conduct post-approval studies.

Preclinical Studies

Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to initiate.

Clinical Trials

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with cGCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, 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. In addition, an IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it initiates at that institution. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their www.clinicaltrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- Phase 1: The drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.
- Phase 2: The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- Phase 3: The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has a goal of ten months from the date of "filing" of a standard NDA, for a new molecular entity, to review and act on the submission. This review typically takes twelve months from the date the NDA is submitted to the FDA because the FDA has approximately two months to make a "filing" decision.

The FDA also may require submission of a REMS plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, which reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical trial sites to assure compliance with cGCP requirements.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing in order for the FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory

criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Special FDA Expedited Review and Approval Programs

The FDA has various programs, including fast track designation, accelerated approval, priority review, and breakthrough therapy designation, which are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life-threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures.

To be eligible for a fast track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors. The FDA may review sections of the NDA for a fast track product on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA.

The FDA may give a priority review designation to drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. Under the new PDUFA agreement, these six and ten month review periods are measured from the "filing" date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for fast track designation are also likely to be considered appropriate to receive a priority review.

In addition, products tested for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may be eligible for accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on IMM or other clinical endpoint, and the drug may be subject to accelerated withdrawal procedures.

Moreover, under the provisions of the Food and Drug Administration Safety and Innovation Act, or FDASIA, passed in July 2012, a sponsor can request designation of a product candidate as a "breakthrough

therapy.” 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. Drugs designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. We may explore some of these opportunities for our product candidates as appropriate.

Accelerated Approval Pathway

The FDA may grant accelerated approval to a drug for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the drug 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 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. Drugs 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 drug, 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 drug.

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 drug, 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 drugs 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 drug’s clinical benefit. As a result, a drug 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 drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by the FDA.

505(b)(2) Pathway

The 505(b)(2) new drug application (NDA) is a U.S. Food and Drug Administration (FDA) abbreviated drug approval pathway. The pathway was created by the Hatch-Waxman Amendments of 1984, with 505(b)(2)

referring to a section of the FDCA. The provisions of 505(b)(2) were created, in part, to help avoid unnecessary duplication of studies already performed on a previously approved (“reference” or “listed”) drug; the section gives the FDA express permission to rely on data not developed by the NDA applicant and for which the applicant has not obtained a right of reference. A 505(b)(2) NDA contains full safety and effectiveness reports but allows at least some of the information required for NDA approval, such as safety and efficacy information on the active ingredient, to come from studies not conducted by or for the applicant. The FDA may also require the applicant to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new product candidate for all or some of the label indications for which the referenced product has been approved, as well as for any indication sought by the Section 505(b)(2) applicant.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may designate a drug product as an “orphan drug” if it is intended to treat a rare disease or condition (generally meaning that such disease or condition affects fewer than 200,000 individuals in the United States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product). A company must request orphan product designation before submitting an NDA. If the request is granted, the FDA will disclose the identity of the therapeutic agent and its potential use. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product with orphan status 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 be receiving orphan product exclusivity. Orphan product exclusivity means that the FDA may not approve any other applications for the same product for the same indication for seven years, except in certain limited circumstances. If a drug or drug product designated as an orphan product ultimately receives marketing approval for an indication broader than what was designated in its orphan product application, it may not be entitled to exclusivity. Orphan exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Further, the FDA may approve more than one product for the same orphan indication or disease as long as the products contain different active ingredients. Moreover, competitors may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

Post-Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There are continuing, annual user fee requirements for any marketed products and the establishments where such products are manufactured, as well as new application fees for supplemental applications with clinical data.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product’s safety and effectiveness after commercialization.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic

unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP requirements and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval of a drug or medical device 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 mandatory 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 NDAs or supplements to approved NDAs, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs or devices may be promoted only for the approved indications and in accordance with the provisions of the approved label. 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.

U.S. Healthcare Fraud and Abuse Laws and Compliance Requirements

We are subject to various federal and state laws targeting fraud and abuse in the healthcare industry. These laws may impact, among other things, our proposed sales and marketing programs. In addition, we may be subject to patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our operations include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from soliciting, receiving, offering or paying remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, an item or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs. The term “remuneration” has been broadly interpreted to include anything of value;
- federal false claims and civil monetary penalties laws, including the federal civil False Claims Act, which prohibits anyone from, among other things, knowingly presenting, or causing to be presented, for payment to federal programs (including Medicare and Medicaid) claims for items or services that are false or fraudulent;
- provisions of HIPAA, which created federal criminal statutes that prohibit, among other things, knowingly and willfully executing a scheme to defraud any healthcare benefit program or making false statements in connection with the delivery of or payment for healthcare benefits, items or services. In

addition, HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, impose certain requirements relating to the privacy, security and transmission of individually identifiable health information; and

- the federal Physician Payments Sunshine Act requirements, under the Patient Protection and Affordable Care Act, which require manufacturers of certain drugs and biologics to track and report to Centers for Medicare & Medicaid Services, or CMS, payments and other transfers of value they make to U.S. physicians and teaching hospitals as well as physician ownership and investment interests in the manufacturer.

Regulation Outside the United States

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 and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws and implementation of corporate compliance programs and reporting of payments or other transfers of value to healthcare professionals.

To market our future products in the European Economic Area, or EEA (comprised of the 28 member states of the EU plus Norway, Iceland and Liechtenstein), and many other foreign jurisdictions, we must obtain separate regulatory approvals. More concretely, in the EEA, medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. There are two types of marketing authorizations:

- The Community MA, which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use of the EMA and which is valid throughout the entire territory of the EEA. The Centralized Procedure is mandatory for certain types of products, such as biotechnology medicinal products, orphan medicinal products and medicinal products indicated for the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, autoimmune and viral diseases. The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EEA, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU; and
- National MAs, which are issued by the competent authorities of the Member States of the EEA and only cover their respective territory, are available for products not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in another Member State through the Mutual Recognition Procedure. If the product has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the Decentralized Procedure.

Under the above described procedures, before granting the MA, the EMA or the competent authorities of the Member States of the EEA assess the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

Data and Marketing Exclusivity

In the EEA, new products authorized for marketing, or reference products, qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic or biosimilar applicants from relying on the preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization in the EU during a period of eight years from the date on which the reference product was first authorized in the EU. The market exclusivity period prevents a successful generic or biosimilar applicant from commercializing its product in the EU until 10 years have elapsed from the initial authorization of the reference product in the EU. The 10-year market exclusivity period can be extended to a maximum of eleven years if, during the first eight years

of those 10 years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

Orphan Drug Designation

In the EEA, a medicinal product can be designated as an orphan drug if its sponsor can establish that the product is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in ten thousand persons in the EU when the application is made, or that the product is intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition in the EU and that without incentives it is unlikely that the marketing of the drug in the EU would generate sufficient return to justify the necessary investment in development. 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 EU or, if such method exists, the drug will be of significant benefit to those affected by that condition.

In the EEA, 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. Marketing authorization for an orphan drug leads to a 10-year period of market exclusivity. During this market exclusivity period, the EMA or the member state competent authorities, cannot accept another application for a marketing authorization, or grant a marketing authorization, for a similar medicinal product for the same indication. The period of market exclusivity is extended by two years for medicines that have also complied with an agreed pediatric investigational plan.

This period 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, for example because the product is sufficiently profitable not to justify market exclusivity. Market exclusivity can be revoked only in very selected cases, such as consent from the marketing authorization holder, inability to supply sufficient quantities of the product, demonstration of “clinical superiority” by a similar medicinal product, or, after a review by the Committee for Orphan Medicinal Products, requested by a member state in the fifth year of the marketing exclusivity period (if the designation criteria are believed to no longer apply). Medicinal products designated as orphan drugs are eligible for incentives made available by the EU and its Member States to support research into, and the development and availability of, orphan drugs.

Other U.S. Regulatory Matters

Manufacturing, sales, promotion and other activities following product approval are also subject to regulation by numerous regulatory authorities in the United States in addition to the FDA, including the Centers for Medicare & Medicaid Services, other divisions of the Department of Health and Human Services, the Department of Justice, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments.

For example, in the United States, sales, marketing and scientific and educational programs also must comply with state and federal fraud and abuse laws. These laws include the federal Anti-Kickback Statute, which makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf), to knowingly and willfully solicit, receive, offer or pay any remuneration that is intended to induce or reward referrals, including the purchase, recommendation, order or prescription of a particular drug, for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. Violations of this law are punishable by up to five years in prison, criminal fines, administrative civil money penalties and exclusion from participation in federal healthcare programs. Moreover, the ACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Pricing and rebate programs must comply with the Medicaid rebate requirements of the U.S. Omnibus Budget Reconciliation Act of 1990 and more recent requirements in the ACA. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, sales, promotion and other activities also are potentially subject to federal and state consumer protection and unfair competition laws.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The failure to comply with any of these laws or regulatory requirements subjects firms to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, requests for recall, seizure of products, total or partial suspension of production, denial or withdrawal of product approvals or refusal to allow a firm to enter into supply contracts, including government contracts. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Prohibitions or restrictions on sales or withdrawal of future products marketed by us could materially affect our business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

U.S. Patent-Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of any future product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. The Hatch-Waxman Act permits restoration of the patent term of up to five years as compensation for patent term lost during product development and FDA regulatory review process. Patent-term restoration, however, cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent-term restoration period is generally half the time between the effective date of an IND and the submission date of an NDA or BLA plus the time between the submission date of an NDA or BLA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may apply for restoration of patent term for our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA or BLA.

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new molecular entity. A drug is a new molecular entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an ANDA or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were

conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Coverage and Reimbursement

Sales of our products will depend, in part, on the extent to which our products will be covered by third party payors, such as government health programs, commercial insurance and managed healthcare organizations. In the United States no uniform policy of coverage and reimbursement for drug products exists. Accordingly, decisions regarding the extent of coverage and amount of reimbursement to be provided for any of our products will be made on a payor-by-payor basis. 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 products to each payor separately, with no assurance that coverage and adequate reimbursement will be obtained.

The United States government, state legislatures and foreign governments have shown significant interest in implementing cost containment programs to limit the growth of government-paid health care costs, including price-controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, the ACA contains provisions that may reduce the profitability of drug products through increased rebates for drugs reimbursed by Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Adoption of general controls and measures, coupled with the tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceutical drugs.

The Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of the Department of Health and Human Services as a condition for states to receive federal matching funds for the manufacturer's outpatient drugs furnished to Medicaid patients. The ACA made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers' rebate liability by raising the minimum basic Medicaid rebate on most branded prescription drugs from 15.1% of average manufacturer price, or AMP, to 23.1% of AMP and adding a new rebate calculation for "line extensions" (i.e., new formulations, such as extended release formulations) of solid oral dosage forms of branded products, as well as potentially impacting their rebate liability by modifying the statutory definition of AMP. The ACA also expanded the universe of Medicaid utilization subject to drug rebates by requiring pharmaceutical manufacturers to pay rebates on Medicaid managed care utilization and by enlarging the population potentially eligible for Medicaid drug benefits. CMS has proposed to expand Medicaid rebate liability to the territories of the United States as well.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Unlike Medicare Part A and B, Part D coverage is not standardized. While all Medicare drug plans must give at least a standard level of coverage set by Medicare, Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing

approval. However, any negotiated prices for our products covered by a Part D prescription drug plan likely will be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

For a drug product to receive federal reimbursement under the Medicaid or Medicare Part B programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the AMP and Medicaid rebate amounts reported by the manufacturer. As of 2010, the ACA expanded the types of entities eligible to receive discounted 340B pricing, although, under the current state of the law, with the exception of children's hospitals, these newly eligible entities will not be eligible to receive discounted 340B pricing on orphan drugs. In addition, as 340B drug prices are determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase.

As noted above, the marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. An emphasis on cost containment measures in the United States has increased, and we expect will continue to increase, the pressure on pharmaceutical pricing. 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 we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

In addition, in most foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing and reimbursement vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. 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. Historically, products launched in the European Union do not follow price structures of the United States and generally prices tend to be significantly lower.

Scientific Advisory Board

We have assembled a highly qualified scientific advisory board that collectively have deep domain expertise in neurodegenerative diseases, infectious disease in the brain, drug development and translational medicine.

Dr. Ted Dawson, M.D., Ph.D., is a director at the Institute for Cell Engineering and Professor of Neurology at The John Hopkins University School of Medicine. He focuses on movement disorders, and many advances in neurobiology of disease have stemmed from Dr. Dawson's identification of the mechanisms of neuronal cell death and the elucidation of the molecular mechanisms of neurodegeneration. He pioneered the role of nitric oxide in neuronal injury in stroke and excitotoxicity and elucidated the molecular mechanisms by which nitric oxide and poly (ADP-ribose) polymerase kills neurons. His studies of nitric oxide led to major insights into the neurotransmitter functions of this gaseous messenger molecule. He co-discovered the neurotrophic properties of non-immunosuppressant immunophilin ligands. Dr. Dawson's discoveries have led to innovative approaches and helped with the enablement of the development of new agents to treat neurologic disorders, such as Parkinson's Disease and Alzheimer's disease as well as other neurodegenerative disorders. For his participation on the Scientific Advisory Board, Dr. Dawson has received options for 131,123 shares of our common stock with an exercise price of \$2.31 per share, which will expire on December 31, 2027.

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Dr. Valina Dawson, Ph.D., is a Professor of Neurology, Neuroscience, Physiology and the Graduate Program in Cellular & Molecular Medicine at the John Hopkins University School of Medicine. She is co-director of the Neuroregeneration and Stem Cell Programs in the Institute for Cell Engineering.

Dr. Dawson's laboratory is actively engaged in discovering and defining cell signaling pathways that lead to either neuronal survival or neuronal death. She explores the role of the monogenic forms of Parkinson's Disease with a focus on parkin, EIF4G1 and LRRK2 in order to begin to define the biochemical signaling important to Parkinson's Disease. She has developed yeast, cellular, fly and mouse models to explore the Parkinson's Disease causing mutations, and studied human neuronal cultures and human postmortem tissue to explore survival and disease signaling events relevant to Parkinson's Disease, and stroke as well as to define neuron survival networks. For her participation on the Scientific Advisory Board, Dr. Dawson has received options for 131,123 shares of our common stock with an exercise price of \$2.31 per share, which will expire on December 31, 2027.

Dr. Warren Olanow, M.D., FRCPC is the Chief Executive Officer of Clintrex Research Corporation, a position he has held since founding Clintrex in 2010. He is the former Henry P. and Georgette Goldschmidt Professor and Co-Chairman Emeritus of the Department of Neurology, and professor in the Department of Neuroscience at the Mount Sinai School of Medicine in New York City. He received his medical degree from the University of Toronto, performed his neurology training at the New York Neurological Institute at Columbia Presbyterian Medical Center at Columbia University, and did post-graduate studies in neuroanatomy at Columbia University. He served on the faculties of McGill University, Duke University, and the University of South Florida prior to joining Mount Sinai. He was the recipient of the Movement Disorder Research Award from the American Academy of Neurology. He is a member of the executive committee of the Michael J. Fox Foundation Scientific Advisory Board and has served on numerous additional medical and scientific advisory boards. He has served on several editorial boards including as Co-Editor-in-Chief of the journal Movement Disorders. His clinical and basic science research efforts are directed toward defining more effective therapies for Parkinson's Disease and other neurodegenerative disorders. Dr. Olanow has authored more than 350 publications, and was ranked #1 in the United States in citations for Parkinson's Disease during the past quarter century. He has lectured on movement disorders at universities and conferences throughout the world.

Dr. Robert Hauser is Professor of Neurology at the University of South Florida College of Medicine, in Tampa, Florida. He serves as Director of the USF Parkinson's Disease and Movement Disorders Center, a Parkinson Foundation Center of Excellence. Dr. Hauser earned a medical degree from Temple University School of Medicine in Philadelphia, Pennsylvania, and completed neurology training at the Eastern Virginia Graduate School of Medicine, in Norfolk, Virginia. Dr. Hauser completed a fellowship in Movement Disorders at the University of South Florida and became Center Director in 1994. Dr. Hauser has authored or co-authored more than 300 peer-reviewed publications and is one of the world's most cited Parkinson's Disease investigators. He is Past Chairman of the Interventional Neurology Section of the American Academy of Neurology, has served on the executive committee of the Parkinson Study Group, and was a member of the steering committee for the NIH-sponsored Neuroprotective Exploratory Trials in Parkinson's Disease program (NET-PD). Dr. Hauser lectures frequently at scientific meetings and served as Chairman of the 2009 World Federation of Neurology International Congress on Parkinson's Disease and Related Disorders. He has extensive expertise in clinical trial design and execution. Outcome measures that he developed have become the gold standard for use in clinical trials. He maintains an active patient practice and has been voted a Top Doctor by his peers and Castle Connolly Medical Ltd. every year since 2003. His primary research interest is the development of new medical and surgical treatments for Parkinson's disease and other movement disorders.

Dr. Karl Kiebertz, M.D., M.P.H., is the Robert J. Joynt Professor in Neurology, Senior Associate Dean for Clinical Research and Director of the Clinical & Translational Science Institute at the University of Rochester Medical Center (URMC). He is also Professor of Public Health Sciences and of Environmental Medicine, and was the founding Director of the Center for Human Experimental Therapeutics (CHET). CHET conducts learning phase clinical trials in a wide spectrum of disorders in collaboration with investigators within the URMC as well as with colleagues throughout North America, Europe, Asia and Oceania. Dr. Kiebertz's primary clinical

and research interests are neurodegenerative diseases affecting the basal ganglia, particularly Parkinson disease, Huntington disease, and HIV-related neurologic disorders. He is the principal investigator for the NINDS sponsored trials of neuroprotective agents for PD (NET-PD) and directed the Coordination Center for an NEI-funded consortium in neuro-ophthalmology. He completed his M.D. and M.P.H. degrees at the University of Rochester, as well as his neurology residency and a fellowship in experimental therapeutics.

Dr. Jeffrey H. Kordower, Ph.D., is the Alla V. and Solomon Jesmer Professor of Aging and Neurological Sciences, Rush University Medical Center. He is an international authority in the area of movement disorders, which special expertise in experimental therapeutics and pathogenesis in movement disorders. Dr. Kordower has been ranked 29th in Parkinson's disease expertise worldwide. He has performed numerous gene and cell therapy preclinical studies that have been translated into clinical trials. He has published landmark papers in the area of cell replacement strategies, including the first demonstration that fetal dopaminergic grafts can survive, innervate, and form synapses in patients with Parkinson's disease (*NEJM*). Furthermore, he demonstrated that long-term grafts in such patients can form Lewy bodies (*Nature Medicine*). He has co-authored a paper in *Nature* demonstrating that human dopaminergic stem cells can survive and function in parkinsonian mice, rats, and monkeys. With regard to gene therapy, he published the lead article in *Science* demonstrating that gene delivery GDNF can prevent the emergence of motor symptoms and prevents nigrostriatal degeneration in nonhuman primate models of Parkinson's disease. Dr. Kordower was also the first to demonstrate that gene delivery of CNTF can obviate neurodegenerative processes in a nonhuman primate model of Huntington's disease. Dr. Kordower has published more than 350 manuscripts and chapters, 14 of which are citation classics. He has lectured all over the world and has served on more than 20 journal editorial boards (Sections Head and Associate Editor on two, including Movement Disorders). He has also served on the program committee for the World Parkinson's Congress, is a Past-President of ASNTR, and is both a founding SAB member and two-time Executive Committee member of The Michael J. Fox Foundation. Dr. Kordower received B.A., M.A., and Ph.D. degrees from the City University of New York (CUNY). He was awarded an Honorary Doctor of Science degree from CUNY in 2004.

Dr. Kenneth Marek is President and senior scientist at the Institute for Neurodegenerative Disorders. Dr. Marek's major research interests include identification of biomarkers for early detection, assessment of disease progression, and development of new treatments for Parkinson's Disease and Alzheimer's disease and related neurodegenerative disorders. His specific interest has been in in vivo neuroreceptor imaging biomarkers. He has authored numerous neurology and neuroscience publications on these topics. Dr. Marek is the principal investigator of several ongoing multi-center international studies, including the Parkinson's Progression Marker Initiative (PPMI), the Parkinson Associated Risk Syndrome (PARS) study, and Pathways to Prevention (P2P). Dr. Marek serves on the scientific advisory board of The Michael J. Fox Foundation and is a special advisor to the foundation. He also was a co-founder of Molecular NeuroImaging, LLC, a company providing discovery and clinical neuroimaging research services. He received an A.B. in Biochemistry from Princeton University and an M.D. from Yale University.

Dr. Jay Pasricha is Vice-Chair of the Department of Medicine and Professor of Medicine and Neuroscience at The Johns Hopkins University School of Medicine, and Professor of Innovation Management at Johns Hopkins Carey Business School. He is Director of the Johns Hopkins Center for Neurogastroenterology and Director of the Amos Food, Body, and Mind Center at Johns Hopkins. Prior to his positions at Johns Hopkins, Dr. Pasricha served as Chief of Gastroenterology at Stanford University School of Medicine from 2007–2012. Prior to that, he led the GI Division at the University of Texas Medical Branch, where he was the Bassel and Frances Blanton Distinguished Professor in Internal Medicine. His specific interests are focused on molecular mechanisms of visceral pain, gastrointestinal motility, the gut-brain axis, microbiota, neuromodulation, and neural control of glycemic control and obesity. His clinical interests include GI motility disorders and abdominal pain as well as the development of novel endoscopic procedures and devices for a variety of gastrointestinal disorders. He has consistently been on Castle Connolly list of America's "Top Docs" as well as "Best Doctors" and has authored more than 300 manuscripts/book chapters. He has served on the National Commission on Digestive Diseases, appointed by Congress to provide a "roadmap" for progress in gastrointestinal disorders. He

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is also the founding Chair of the Center for Gastrointestinal Innovation and Technology, created by the AGA (American Gastroenterological Association). Dr. Pasricha served on the FDA GI Drug Advisory Committee for several years and continues to provide advice to the agency on an ad hoc basis. Dr. Pasricha holds more than 50 patents issued by the USPTO and has co-founded several companies within the Medtech and biotech GI space including Apollo Endosurgery, Enterastim, First Aid Shot Therapeutics (FAST), Neurogastrx, Orphomed, and Glyscend. Dr. Pasricha received his Doctor of Medicine from the All-India Institute of Medical Sciences and training in New Delhi. Subsequently, he trained in internal medicine and pulmonology at Georgetown University-DC General Hospital and Tufts-New England Medical Center, respectively. Thereafter, he trained in gastroenterology at Johns Hopkins Hospital.

Employees and Human Capital Resources

As of March 31, 2021, we have three employees and nine contractors, five of whom collectively comprise our management team. All but one of these individuals holds a Ph.D. or an M.D. Our employees and contractors are located in Boston, Connecticut and Atlanta. The Company expects to add five additional employees after the completion of this offering. None of our employees is represented by a labor union or covered under a collective bargaining agreement.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards.

Facilities

Our corporate headquarters are located in Atlanta, Georgia, where we lease a single corporate office. Additionally, we have offices in Boston, Massachusetts which we use as conference spaces for our team, most of whom are based in the surrounding area. It is anticipated that these distinct facilities will be consolidated in the Boston, Massachusetts area following this offering.

Legal Proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the names, ages and positions of our executive officers and directors as of June 7, 2021:

Name	Age	Position
Executive Officers:		
Milton H. Werner, Ph.D.	58	President, Chief Executive Officer and Director
Joseph Frattaroli, C.P.A.	59	Chief Financial Officer
Non-Employee Directors:		
Elizabeth O'Farrell ⁽¹⁾⁽²⁾⁽⁴⁾	57	Director
Roy Freeman, M.D. ⁽²⁾⁽³⁾	69	Director
Paul Grint, M.D. ⁽¹⁾⁽²⁾⁽³⁾⁽⁵⁾	63	Director
Dennis Berman ⁽¹⁾⁽³⁾⁽⁶⁾	70	Director

- (1) Member of the audit committee
- (2) Member of the compensation committee
- (3) Member of the corporate governance and nominating committee
- (4) Chair of audit committee
- (5) Chair of compensation committee
- (6) Chair of corporate governance and nominating committee

Executive Officers

Milton H. Werner, Ph.D. has been our President and Chief Executive Officer and a member of our board of directors since our formation as a Delaware corporation in June 2010. He founded our predecessor, Inhibikase Therapeutics, LLC, in 2008 as an entrepreneurial start-up in Atlanta, Georgia with initial financial support from the Georgia Research Alliance. Prior to founding Inhibikase, from May 2007 until August 2008, Dr. Werner served as Director of Research at Celtaxsys, Inc., a cell-free immunotherapeutics company. From September 1996 until June 2007, Dr. Werner was a Head of the Laboratory of Molecular Biophysics at The Rockefeller University and departed the University at the rank of Associate Professor. While at The Rockefeller University, Dr. Werner focused on developing more complete understandings of mechanisms of human disease in immunology, oncology and infectious disease.

Dr. Werner is the author or co-author of more than 70 research articles, reviews and book chapters and has given lectures on his research work on more than 150 occasions throughout the world. He is the recipient of numerous private and public research grants totaling more than \$21 million, and of several awards, including the Young Investigator Award from the Sidney Kimmel Cancer Foundation, the Research Chair from the Brain Tumor Society and a \$1 million Distinguished Young Scholars in Medical Research award from the W. M. Keck Foundation. He is also an Adjunct Full Professor in the School of Biology at the Georgia Institute of Technology and a Member of the Winship Cancer Institute of Emory University, both in Atlanta, Georgia. Dr. Werner received his Ph.D. in Chemistry from the University of California, Berkeley and his B.S. in Biochemistry from the University of Southern California. He also completed his post-doctoral training at the National Institute of Health with a specialization in structural biology.

We believe Dr. Werner is qualified to serve on our board of directors because of the perspective and experience he provides as our founder and as our President and Chief Executive Officer, as well as his experience within the pharmaceutical industry, particularly in the area of neuroscience, infectious disease and drug discovery and development.

Joseph Frattaroli has served as our Chief Financial Officer since April 2018. From July 2015 through 2017, Mr. Frattaroli has served as an independent consultant to Danforth Advisors LLC, providing strategic advisory

services to emerging public and private biotechnology and biopharmaceutical clients of Danforth Advisors LLC. In January 2010, Mr. Frattaroli founded Flagship Consulting, Inc. through which he has provided chief financial officer and consulting services for the past 10 years to several emerging biopharmaceutical and medical device companies, with responsibilities that included capital formation, deal structuring, and assisting private companies in their transition to becoming publicly traded SEC registrants. Mr. Frattaroli is a certified public accountant with more than 15 years of experience in public company filings and compliance for Nasdaq and OTC Markets companies. Mr. Frattaroli received his B.S. in Accounting from Salem State University and was previously employed by Ernst & Young, LLP.

On March 11, 2010, Vaso Active Pharmaceuticals, Inc. (“Vaso”), for which Mr. Frattaroli was acting CEO and President, filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, which on July 11, 2016 was converted into a Chapter 7 case. On October 9, 2012, the U.S. Bankruptcy Court for the District of Delaware (the “Court”) ruled in an action by the Avoidance Action Trustee (the “Trustee”) brought against Mr. Frattaroli that certain transfers by Vaso to Mr. Frattaroli should be avoided. On December 19, 2012, the Trustee procured a final judgement against Mr. Frattaroli in the amount of \$322,827 plus interest. On September 25, 2018, the Trustee entered into a Settlement Agreement with Mr. Frattaroli providing for the payment of \$35,000 in full and complete satisfaction of the judgement which was approved by the Court on October 29, 2018.

Key Non-Executive Officers

Roger Rush, Ph.D. has been our Head of Preclinical Research since January 2015 and is an experienced veteran of the pharmaceutical industry with over 30 years of experience working in the United Kingdom and U.S. for small and large pharmaceutical companies and contract research organizations, and is now based in the greater Boston area. Dr. Rush has been a principal of Allon Preclinical Consulting, LLC since February 2015. From March 2012 to December 2014, he was Vice President Preclinical Development for Idenix Pharmaceuticals, Inc., a pharmaceutical company and wholly-owned subsidiary of Merck & Company, Inc., where he managed the DMPK, toxicology and discovery research that lead to the identification of lead molecules to treat the Hepatitis C virus. His major career focus has been on preclinical research and development, safety assessment and the translation of discovery research molecules into clinical development. He has contributed to over 20 IND, CTA and product license submissions and approved drugs including nicardipine (Cardene), ranolazine (Ranexa), Foscan, and zileuton (Zyflo CR). His work has spanned numerous therapeutic areas, including anti-inflammatory, anti-allergy, arthritis, anti-infectives, CNS, cardiovascular, oncology, genitourinary and anti-hyperlipidemics. He received his B.Sc. and Ph.D. in Biochemistry from the University of Surrey in the United Kingdom.

Surendra Singh, Ph.D. has served as our head of Chemistry, Manufacturing and Controls (CMC) as a consultant since August 2014. As our head of Chemistry, Manufacturing and Controls, Dr. Singh establishes and manages the commercial process, global outsourcing, and global vendor management, as well as participates in all aspects of the drafting and review of regulatory documents from the IND to NDA. Since 2011, Dr. Singh has served as chemical manufacturing and controls consultant at Syner-G Pharma Consulting, LLC, a pharmaceutical manufacturing consultancy. From 2001 to 2011, he served in various roles at Sunovion Pharmaceuticals Inc. and its predecessor, Sepracor Inc., including as a director of chemical process research. He is an expert in chemical process research and development, from lead optimization to launch, technology transfer and API manufacturing. Dr. Singh received his doctoral degree from the Indian Institute of Technology in 1991 and was a post-doctoral fellow at The Ohio State University from 1991 to 1994.

Terence Kelly, Ph.D. currently serves as our Medicinal Chemistry and Drug Discovery consultant. Since June 2014, he has served as a member of the board of directors of Cardax, Inc., a life sciences company that develops consumer health and pharmaceutical technologies. Dr. Kelly is a 30-year pharmaceutical industry veteran and, along with Dr. Werner, developed the RAMP™ approach to drug design. He is a founder of Kelly Pharma Research Consulting, LLC and has served as its President since January 2010. From June 2010 to

July 2017, he held several positions at CoMentis, including President and CEO. From July 2002 to December 2009, he served as Vice-President of Medicinal Chemistry at Boehringer Ingelheim Pharmaceuticals, Inc. Dr. Kelly received his B.S. in Chemistry from Rensselaer Polytechnic Institute and his Ph.D. in Chemistry from the University of Texas at Austin. He also completed postdoctoral work in natural products synthesis at Yale University and received an M.B.A. from New York University, Stern School of Business.

Warren Olanow, M.D. is Interim Chief Medical Officer of Inhibikase and Chief Executive Officer of Clintrex Research Corporation, a clinical research consultancy he founded in 2010. He is the former Henry P. and Georgette Goldschmidt Professor and Co-Chairman of the Department of Neurology at the Mount Sinai School of Medicine in New York City, a capacity he served in from 1994-2009. He is presently Professor Emeritus in the Department of Neurology and in the Department of Neuroscience. Prior to joining Mount Sinai, he served on the faculties of McGill University, Duke University, and the University of South Florida. He is the former President of the Movement Disorder Society, past President of the International Society of Motor Disturbances, and former Treasurer of the American Neurological Association. He has served on the Board of Directors of the National Space Biomedical Research Institute and the executive committee of the Michael J. Fox Foundation Scientific Advisory Board, and he is the former Chairman of the Scientific Advisory Board of the Bachmann-Strauss Parkinson and of the Dystonia Foundation. Dr. Olanow is the former Co-Editor-in-Chief of the journal, *Movement Disorders*. He has been principal investigator of numerous studies leading to approval of drugs and devices for treating neurodegenerative diseases. Dr. Olanow received his medical degree from the University of Toronto, performed his neurology training at the New York Neurological Institute at Columbia Presbyterian Medical Center at Columbia University, and undertook postgraduate studies in neuroanatomy at Columbia University.

Non-Employee Directors

Dennis Berman has been a co-founder, board member, and/or seed investor in many private biotechnology and technology companies, five of which have gone public. Since June 2017, Mr. Berman has served as the President of Molino Ventures, LLC, a board advisory and venture capital firm. From May 2008 to April 2017, he served as co-founder and Executive Vice President of Corporate Development of Tocagen Inc., a publicly traded gene therapy company utilizing a retrovirus and prodrug to activate patients' immune systems against their cancers. He also served as a member of the board of directors of Tocagen Inc. from August 2007 to April 2017. Other public companies for which Mr. Berman has served as a seed investor, co-founder, and/or board member include Intervu, one of the first software-as-a-service companies, Kintera Inc., an online fundraising pioneer, Gensia, a company that focused on purine/pyrimidine metabolism compounds, and Viagene, the first U.S. gene therapy company, which utilized a non-replicating retrovirus. Mr. Berman also was a seed investor in the water treatment company Calabrian. Previously, Mr. Berman was a corporate law partner at several large law firms, including Reavis & McGrath (now Norton Rose Fulbright) and Sonnenschein Nath & Rosenthal (now Dentons). Mr. Berman holds a B.S. from the Wharton School of the University of Pennsylvania in Accounting/ Economics, a B.A. from the University of Pennsylvania in Economics, and a J.D. from Harvard Law School. He has been an Entrepreneur in Residence at Harvard's Innovation Lab (i-lab) and a guest speaker at the Harvard School of Public Health. Mr. Berman's skills in corporate governance, corporate finance, and value creation in early and late stage pharmaceutical and biotechnology companies makes him uniquely qualified to serve on our board of directors.

Roy Freeman, M.D. has been a Professor of Neurology at the Harvard Medical School and Director of the Center for Autonomic and Peripheral Nerve Disorders in the Department of Neurology at Beth Israel Deaconess Medical Center in Boston, Massachusetts since 1990. From 2017 to 2019, Dr. Freeman served on the board of directors of NeuroBio Pharmaceuticals, Inc. Dr. Freeman is the former chairman of the World Federation of Neurology research group on the autonomic nervous system, former president of the American Autonomic Society, and former chairman of the Autonomic Section of the American Academy of Neurology. He serves on the Executive Committee and the Steering Committee of the Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION), a public-private partnership with the

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United States FDA. Dr. Freeman is Editor-in-Chief of *Autonomic Neuroscience: Basic and Clinical* and on the editorial boards of *The Clinical Journal of Pain*, *Pain: Clinical Updates*, and *Clinical Autonomic Research*. He is a founder of several companies in pain and neurodegenerative disease and is on the scientific advisory boards of many large and small pharmaceutical and biotechnology companies. His research and clinical interests are biomarker development in neurodegenerative disease, the physiology and pathophysiology of the small nerve fibers and the autonomic nervous system, and clinical trial design methodology in peripheral and central nervous system disease. He is the principal investigator on NIH-funded studies on the neurological complications of diabetes, the neurobiology of stress, and biomarker development in alpha-synucleinopathies. He has been principal investigator on many neurodegenerative disease and neuropathic pain clinical trials. He has authored more than 250 original reports, chapters, and reviews. Dr. Freeman received his medical degree from the University of Cape Town. Dr. Freeman's specific and extensive experience in clinical treatment of Parkinson's and other neurological disorders coupled with his extensive experience as a director of pharmaceutical companies and as an advisor of novel therapies for neurological diseases makes him uniquely qualified to serve on our board of directors.

Paul Grint, M.D. has served as a member of the board of directors of Cardea Bio since April 2020. Since 2016, Dr. Grint has served as a member of the board of directors and as a member of the compensation committee of the board of directors of Amplyx Pharmaceuticals. Since 2014, he has served as a member of the board of directors and as a member of the compensation committee of the board of directors of Synedgen. From 2017 to 2019, Dr. Grint served as Chief Executive Officer of AmpliPhi Biosciences and as a member of AmpliPhi Bioscience's board of directors from 2015 to 2019. From 2014 to 2017, Dr. Grint served as Chief Executive Officer of Regulus Therapeutics, Inc., a publicly-traded clinical stage biopharmaceutical company. Dr. Grint has more than two decades of experience in biologics and small-molecule research and development, including the successful approval and commercialization of products in the infectious diseases, immunology, and oncology therapeutic areas. Dr. Grint has also served in senior management roles at Cerexa, Forest Laboratories, Kalypsys, Pfizer, IDEC Pharmaceuticals, and Schering-Plough Corporation. He is a Fellow of the Royal College of Pathologists, a member of numerous professional and medical societies, and holds a B.Sc. from St. Mary's Hospital College, University of London and an M.B. and B.S. from St. Bartholomew's Hospital College, University of London. Dr. Grint's extensive leadership experience as both Chief Executive Officer and as a director of privately held and public companies along with his extensive experience in clinical pharmaceutical development makes him uniquely qualified to serve on our board of directors.

Elizabeth O'Farrell, has served as a member of the board of directors and as a member of the audit committee of the board of directors of Geron Corporation since March 2019. Since June 2018, Ms. O'Farrell has served as a member of the board of directors of PDL BioPharma, Inc. Since February, 2021, Ms. O'Farrell is a member of the board of directors of Lensar and serves as member and chair of their Audit Committee. Ms. O'Farrell retired in 2017 after a 25-year career with Eli Lilly and Company, most recently serving as Chief Procurement Officer and Leader, Global Shared Services from January 2012 to December 2017. Prior to that, she advanced through a number of executive management positions including Senior Vice President, Policy and Finance; Senior Vice President, Finance; Chief Financial Officer, Lilly USA; Chief Financial Officer, Lilly Canada; and General Auditor. Before joining Eli Lilly, Ms. O'Farrell was an accountant with Boise Cascade Office Products and served as an auditor at Whipple & Company and Price Waterhouse. She is also a member of the Finance Committee of the United Way of Brevard County Florida and is a volunteer mentor with WeVenture, a small business mentoring program affiliated with the Florida Institute of Technology. Ms. O'Farrell previously served on the boards of the Washington Township Schools Foundation and Keep Indianapolis Beautiful. Ms. O'Farrell holds a B.S. in accounting with honors and an M.B.A. in management information systems, both from Indiana University. Ms. O'Farrell's extensive financial management experience in the pharmaceutical industry and her financial management of strategic partnerships and supply chain management make her uniquely qualified to serve on our board of directors.

Family Relationships

No family relationships exist between any director, executive officer or person nominated or chosen to be a director or officer.

Board of Directors Composition

Our board of directors currently consists of five members. The number of directors will be fixed by our board of directors, subject to the terms of our amended and restated certificate of incorporation and amended and restated bylaws. Each of our current directors will continue to serve as a director until the election and qualification of his or her successor, or until his or her earlier death, resignation or removal.

Our amended and restated certificate of incorporation provides that our board of directors be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of stockholders, with the other classes continuing for the remainder of their respective three-year terms. Our current directors are divided among the three classes as follows:

- the Class I director is Dr. Werner, and his term will expire at the annual meeting of stockholders to be held in 2021;
- the Class II directors are Dr. Freeman and Dr. Grint, and their terms will expire at the annual meeting of stockholders to be held in 2022; and
- the Class III directors are Mr. Berman and Ms. O'Farrell, and their terms will expire at the annual meeting of stockholders to be held in 2023.

At each annual meeting of stockholders, upon the expiration of the term of a class of directors, the successor to each such director in the class will be elected to serve from the time of election and qualification until the third annual meeting following his or her election and until his or her successor is duly elected and qualified, in accordance with our amended and restated certificate of incorporation. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of our directors.

This classification of our board of directors may have the effect of delaying or preventing changes in control of our company.

In addition, under the terms of our amended and restated certificate of incorporation and our amended and restated bylaws, members of our board of directors may only be removed for cause. This may also have the effect of delaying or preventing changes in control of our company.

Director Independence

Our common stock is listed on the Nasdaq Capital Market, or Nasdaq. Under the rules of Nasdaq, independent directors must comprise a majority of a listed company's board of directors within one year of the completion of its initial public offering. In addition, the rules of Nasdaq require that, subject to specified exceptions, each member of a listed company's audit, compensation and corporate governance and nominating committees be independent. Audit committee members and compensation committee members must also satisfy the independence criteria set forth in Rule 10A-3 and Rule 10C-1, respectively, under the Exchange Act. Under the rules of Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

To be considered to be independent for purposes of Rule 10A-3 and under the rules of Nasdaq, 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

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committee, the board of directors, or any other board of directors committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

To be considered independent for purposes of Rule 10C-1 and under the rules of Nasdaq, the board of directors must affirmatively determine that each member of the compensation committee is independent, including a consideration of all factors specifically relevant to determining whether the director has a relationship to the 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: (i) the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by the company to such director; and (ii) whether such director is affiliated with the company, a subsidiary of the company or an affiliate of a subsidiary of the company.

Our board of directors undertook a review of its composition, the composition of its committees and the independence of our directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each non-employee director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that none of our directors have relationships that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the rules of Nasdaq and Rule 10A-3 and Rule 10C-1 under the Exchange Act. Only Dr. Werner is not independent under Nasdaq's independence standards.

In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director, and the transactions involving them described in the section titled "Certain Relationships and Related Party Transactions."

Board of Directors Leadership Structure

As a general policy, our board of directors believes that separation of the positions of Chairperson and Chief Executive Officer reinforces the independence of our board of directors from management, creates an environment that encourages objective oversight of management's performance and enhances the effectiveness of our board of directors as a whole. As such, Dr. Werner serves as our President and Chief Executive Officer. At the present time, the Company does not expect to have a Chairperson of our board of directors. Such Chairperson of our board of directors, when appointed, will not be an officer. We expect and intend the positions of Chairperson of our board of directors and Chief Executive Officer to be held by two separate individuals in the future.

Board of Directors Committees

The board of directors has established three standing committees of the board consisting of an audit committee, a compensation committee and a corporate governance and nominating committee, each of which will have the composition and the responsibilities described below.

Audit Committee

Our audit committee is comprised of Ms. O'Farrell, Dr. Grint and Mr. Berman. Ms. O'Farrell is the chair of our audit committee, and is our audit committee financial expert, as that term is defined under the applicable SEC rules, and possesses financial sophistication, as defined under the rules of Nasdaq. All of the members of our audit committee are independent, as that term is defined under the rules of Nasdaq. Our audit committee is

responsible for overseeing our corporate accounting and financial reporting process, assisting our board of directors in monitoring our financial systems, and overseeing legal, healthcare and regulatory compliance. Our audit committee also:

- selects and hires the independent registered public accounting firm to audit our financial statements;
- helps to ensure the independence and performance of the independent registered public accounting firm;
- approves audit and non-audit services and fees;
- reviews financial statements and discusses with management and the independent registered public accounting firm our annual audited and quarterly financial statements, the results of the independent audit and the quarterly reviews and the reports and certifications regarding internal controls over financial reporting and disclosure controls;
- prepares the audit committee report that the SEC requires to be included in our annual proxy statement;
- reviews reports and communications from the independent registered public accounting firm;
- reviews the adequacy and effectiveness of our internal controls and disclosure controls and procedure;
- reviews our policies on risk assessment and risk management;
- reviews related party transactions; and
- establishes and oversees procedures for the receipt, retention and treatment of accounting related complaints and the confidential submission by our employees of concerns regarding questionable accounting or auditing matters.

Our audit committee operates under a written charter, which satisfies the applicable rules of the SEC and the listing standards of Nasdaq.

Compensation Committee

Our compensation committee is comprised of Dr. Grint, Ms. O'Farrell and Dr. Freeman. Dr. Grint is the chair of our compensation committee. All of the members of our compensation committee are independent, as that term is defined under the rules of Nasdaq. Our compensation committee oversees our compensation policies, plans and benefits programs. The compensation committee also:

- oversees our overall compensation philosophy and compensation policies, plans and benefit programs;
- reviews and recommends to our board of directors for approval compensation for our executive officers and directors;
- prepares the compensation committee report that the SEC would require to be included in our annual proxy statement if we were no longer deemed to be an emerging growth company or a smaller reporting company; and
- administers our equity compensation plans.

Our compensation committee operates under a written charter, which satisfies the applicable rules of the SEC and the listing standards of Nasdaq.

Corporate Governance and Nominating Committee

Our corporate governance and nominating committee is comprised of Mr. Berman, Dr. Grint and Dr. Freeman. Mr. Berman is the chair of our corporate governance and nominating committee. All members are independent, as that term is defined under the rules of Nasdaq. Our corporate governance and nominating

committee oversees and assists our board of directors in reviewing and recommending nominees for election as directors. Specifically, the corporate governance and nominating committee:

- identifies, evaluates and makes recommendations to our board of directors regarding nominees for election to our board of directors and its committees;
- considers and makes recommendations to our board of directors regarding the composition of our board of directors and its committees;
- reviews developments in corporate governance practices;
- evaluates the adequacy of our corporate governance practices and reporting; and
- evaluates the performance of our board of directors and of individual directors.

Our corporate governance and nominating committee operates under a written charter, which satisfies the applicable rules of the SEC and the listing standards of Nasdaq.

Director Compensation

Prior to our December 2020 initial public offering, our non-employee directors received non-qualified stock options on an annual basis. They did not receive cash compensation but we reimbursed them for expenses associated with attending meetings of our board of directors and its committees.

The following table presents the total compensation received by each of our non-employee directors during the year ended December 31, 2020.

Name	Fees Earned or Paid in	Option Awards	Total (\$)
	Cash (\$)	(\$)(1)	
Mr. Dennis Berman(2)	—	39,372	39,372
Dr. Roy Freeman(3)	—	39,372	39,372
Dr. Paul Grint(4)	—	39,372	39,372
Ms. Elizabeth O'Farrell(5)	—	39,372	39,372

- (1) The amounts disclosed represent the aggregate grant date fair value of the award as calculated in accordance with FASB Accounting Standards Codification Topic 718, or ASC 718. The assumptions used in calculating the grant date fair value of the award disclosed in this column are set forth in Note 6, Stock-Based Compensation, to our audited financial statements included in our Annual Report. These amounts do not correspond to the actual value that may be recognized by the directors upon vesting of the applicable awards.
- (2) As of December 31, 2020, Mr. Berman held options through Molino Ventures, LLC to purchase 137,948 shares of our common stock and 114,733 shares subject to such options were vested as of such date.
- (3) As of December 31, 2020, Dr. Freeman held options to purchase 137,948 shares of our common stock and 118,375 shares subject to such options were vested as of such date.
- (4) As of December 31, 2020, Dr. Grint held options to purchase 137,948 shares of our common stock and 114,733 shares subject to such options were vested as of such date.
- (5) As of December 31, 2020, Ms. O'Farrell held options to purchase 137,948 shares of our common stock and 125,660 shares subject to such options were vested as of such date.

Each non-employee director is eligible to receive compensation for his or her service consisting of annual cash retainers and equity awards as described below. Our board of directors may revise outside director compensation as it deems necessary or appropriate.

Cash Compensation

Commencing January 1, 2021, all non-employee directors receive the following cash compensation for their services:

- \$40,000 per year for service as a board member;
- \$30,000 per year additionally for service as non-executive Chairperson of the Board;
- \$20,000 per year additionally for service as chair of the audit committee;
- \$5,000 per year additionally for service as member of the audit committee (excluding committee chair);
- \$10,000 per year additionally for service as chair of the compensation committee;
- \$5,000 per year additionally for service as member of the compensation committee (excluding committee chair);
- \$5,000 per year additionally for service as chair of the corporate governance and nominating committee;
- \$3,000 per year additionally for service as member of the corporate governance and nominating committee (excluding committee chair);

All cash payments to non-employee directors who served in the relevant capacity at any point during the immediately preceding prior fiscal quarter will be paid quarterly in arrears. A non-employee director who served in the relevant capacity during only a portion of the prior fiscal quarter will receive a pro-rated payment of the quarterly payment of the applicable cash retainer.

Equity Compensation

The Company intends to make annual equity grants to non-employee directors coincident with each annual meeting of stockholders.

Scientific Advisory Board Compensation

With the exception of Drs. Ted and Valina Dawson, each member of our scientific advisory board earns \$400-600 per hour for his or her service as a member of our scientific advisory board, and, in January 2021, received a one-time stock option grant in respect of 11,438 shares of common stock. Unlike other scientific advisory board members, we have ongoing pre-clinical research collaborations with Drs. Ted and Valina Dawson and therefore they each received a stock option grant in respect of 131,123 shares of common stock with a five-year vesting period in 2017 and an exercise price of \$2.31. We also reimburse each member of our scientific advisory board for all reasonable and necessary expenses in connection with the performance of his or her services. Members of the scientific advisory board who are also our employees or directors receive no additional compensation for their service on the scientific advisory board.

Compensation Committee Interlocks and Inside Participation

None of the members of our compensation committee are or have been an officer or employee of our company. None of our executive officers currently serve, or in the past fiscal year has served, on the board of directors or compensation committee (or other board of directors' committee performing equivalent functions) of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Risk Oversight

In its governance role, and particularly in exercising its duty of care and diligence, the board of directors is responsible for ensuring that appropriate risk management policies and procedures are in place to protect the

company's assets and business. Our board of directors has broad and ultimate oversight responsibility for our risk management processes and programs and executive management is responsible for the day-to-day evaluation and management of risks to the Company.

Code of Business Conduct and Ethics

We have adopted 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. The code of business conduct and ethics is available on our website at www.inhibikase.com. We intend to disclose future amendments to such code, or any waivers of its requirements, applicable to any principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions or our directors on our website identified above. The inclusion of our website address in this prospectus does not include or incorporate by reference the information on our website into this prospectus. We will provide any person, without charge, upon request, a copy of our code of conduct and ethics. Such requests should be made in writing to the attention of Dr. Milton Werner, President and CEO at Inhibikase Therapeutics, Inc., 3350 Riverwood Parkway SE, Suite, 1900, Atlanta, GA 30339.

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation and amended and restated bylaws, which became effective upon the completion of our December 2020 initial public offering, provides that we indemnify our directors and officers, and may indemnify our employees and other agents, to the fullest extent permitted by Delaware law. Delaware law prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In the case of an action or proceeding by or in the right of our company or any of our subsidiaries, no indemnification will be provided for any claim where a court determines that the indemnified party is prohibited from receiving indemnification. We believe that these charter and bylaw provisions are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. Moreover, a stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

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Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

EXECUTIVE COMPENSATION

Our named executive officers for 2020 which consist of our principal executive officer and the next most highly compensated executive officer, are:

- Milton H. Werner, Ph.D., our President and Chief Executive Officer; and
- Joseph Frattaroli, C.P.A., our Chief Financial Officer

Summary Compensation Table

The following table sets forth information regarding the compensation of our named executive officers for the years ended December 31, 2019 and December 31, 2020:

Name and Principal Position	Year	Salary	Option Awards	All Other Compensation	Total
		(\$)	(\$)(1)	(\$)	(\$)
Milton H. Werner, Ph.D.	2020	292,800	653,378	14,541(2)	960,719
<i>President and Chief Executive Officer</i>	2019	292,800	77,276	14,541(2)	384,617
Joseph Frattaroli, C.P.A.	2020	300,000(3)	1,342,220	—	1,642,220
<i>Chief Financial Officer</i>	2019	300,000	—	—	300,000

- (1) The amount reported represents the aggregate grant date fair value of the award as calculated in accordance with ASC 718. The assumptions used in calculating the grant date fair value of the award disclosed in this column are set forth in footnote 6, Stock-Based Compensation, to our audited financial statements included in our Annual Report.
- (2) The amount reported represents \$2,615 for life insurance policy premiums and \$11,926 in automobile expenses in 2019 and \$2,615 for life insurance policy premiums and \$11,926 in automobile expenses in 2020.
- (3) Amounts paid to Mr. Frattaroli in this table include all amounts paid in respect of his services, whether paid to him personally or to Flagship Consulting, Inc. Half of the amounts reported for 2020 were paid through a promissory note, which note was converted into 44,143 shares of our common stock concurrent with the consummation of our December 2020 initial public offering.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information concerning outstanding equity awards held by each of our named executive officers as of December 31, 2020:

Name	Option Awards					
	Equity					
	incentive					
	awards:					
	Number of	Number of	Number of			
	Securities	Securities	Securities			
	Underlying	Underlying	Underlying			
	Unexercised	Unexercised	unexercised	Option	Option	
	Grant	Options (#)	Options (#)	unearned	Exercise	Expiration
	Date(1)	Exercisable	Unexercisable	options (#)	Price (\$)(2)	Date
Milton H. Werner, Ph.D.	6/1/2011	43,708	—	—	0.38	6/1/2021
	6/1/2013	21,854	—	—	2.02	6/1/2023
	3/1/2015	21,854	—	—	2.02	3/1/2025
	11/1/2015	21,854	—	—	2.31	11/1/2025
	11/1/2016	21,854	—	—	2.31	11/1/2026
	11/1/2017	21,854	—	—	2.31	11/1/2027
	11/1/2018	21,854	—	—	4.79	11/1/2028
	11/1/2019	21,854	—	—	5.57	11/1/2029
	12/22/2020	—	100,000(1)	—	10.00	12/22/2027
Joseph Frattaroli, C.P.A.	8/25/2020	21,854	—	—	5.90	8/25/2027
	8/25/2020	—	150,000(2)	—	5.90	8/25/2027
	12/22/2020	—	100,000(1)	—	10.00	12/22/2027

- (1) One third of these grants will vest and become exercisable on the first anniversary of the closing of our initial public offering (i.e. December 28, 2021) and the remainder will vest and become exercisable in 24 equal monthly installments thereafter (commencing with January 1, 2022), subject generally to continued service through each date.
- (2) This grant was issued to Flagship Consulting, Inc., an entity controlled by Mr. Frattaroli. It will vest and become fully exercisable on August 25, 2021, subject generally to continued service.

Employment Arrangements with Our Named Executive Officers

Milton H. Werner, Ph.D.

Current Employment Agreement

We have entered into an employment agreement with Dr. Werner, or the Werner Employment Agreement, which became effective upon the Company's December 2020 initial public offering. The Werner Employment Agreement supersedes Dr. Werner's prior employment agreement in all respects. Under the Werner Employment Agreement, Dr. Werner serves as the President and Chief Executive Officer of the Company. He receives an annual base salary of \$455,000 and is eligible to receive an annual performance cash bonus with a target amount equal to 35% of his annual base salary, based upon achievement of performance goals established by the compensation committee of the board of directors. In addition, upon the initial public offering, Dr. Werner was granted a stock option to purchase 100,000 shares of Company common stock under our equity incentive plan, which will vest over a three-year period subject to continued employment through each vesting date.

The Werner Employment Agreement provides that Dr. Werner would be eligible to participate in all benefit and fringe benefit plans generally made available to our other executive officers. In addition, he is entitled to (i) four weeks of paid vacation per year and (ii) reimbursement of certain relocation expenses in the event that our headquarters is relocated by more than 75 miles from his current primary residence in Atlanta, Georgia, including reasonable travel to and from the new office location and temporary lodging near such location, up to a

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maximum of \$200,000, provided the expenses are incurred in the calendar year in which the headquarters are relocated. It is anticipated that the headquarters will be relocated to the Boston, Massachusetts area during 2021.

The Werner Employment Agreement provides that it shall continue until terminated (i) by mutual agreement; (ii) due to death or disability of Dr. Werner; (iii) by Dr. Werner without good reason upon 90 days written notice to us; (iv) by us for cause ; (v) by us without cause; or (vi) by Dr. Werner for good reason .

Pursuant to the Werner Employment Agreement, Dr. Werner is subject to a one-year post-termination non-compete and non-solicit of employees and clients. He is also bound by confidentiality provisions.

In the event of a termination without cause or a termination by Dr. Werner for good reason other than in connection with a change in control, Dr. Werner will receive: an aggregate of 12 months of salary continuation at his then-current base annual salary, paid out in equal installments over a 6-month period; payment of any amount of annual bonus accrued for the year prior to the date of termination; payment of the bonus Dr. Werner would have received based on the attainment of performance goals had he remained employed through the end of the year of termination, pro-rated based on the number of days in the termination year that Dr. Werner was employed by us (paid when the Company's other senior executives receive payment of their annual bonuses); reimbursement of COBRA premiums for up to twelve months; and full vesting for any outstanding, unvested equity awards granted under the 2011 Plan. Dr. Werner's outstanding vested stock options will generally remain exercisable no longer than six (6) months following such a termination.

In the event of a termination without cause or a resignation by Dr. Werner for good reason within 12 months following a change in control, Dr. Werner will receive an aggregate of 18 months of salary continuation at his then-current base annual salary, paid out in equal installments over a 12-month period; payment of any amount of annual bonus accrued for the year prior to the year of termination; payment of a pro-rated target annual bonus for the year of termination based on the number of days in the termination year that Dr. Werner was employed by us; payment of one time his then-current target annual bonus; reimbursement of COBRA premiums for up to 18 months; and full vesting for any outstanding, unvested equity awards. Dr. Werner's outstanding vested stock options will generally remain exercisable no longer than six (6) months following such a termination.

The receipt of any termination benefits described above is subject to Dr. Werner's execution of a release of claims in favor of the Company, a form of which is attached as an exhibit to the Werner Employment Agreement.

In the event of Dr. Werner's termination due to death or disability that is not in connection with a change in control, Dr. Werner will receive full vesting for any outstanding, unvested equity awards granted under the 2011 Plan. In the event of Dr. Werner's termination due to death or disability that is within the 12 months following a change in control, Dr. Werner will receive full vesting for any outstanding, unvested equity awards. In either case, outstanding vested stock options will generally remain exercisable no longer than six (6) months following termination.

To comply with Massachusetts law governing non-competition agreements, the Werner Employment Agreement also provides for severance payments equal to half of Dr. Werner's highest annual base salary during the two years preceding termination in the event of Dr. Werner's termination for any reason other than a termination without cause, a resignation with good reason or death. Such amounts will be paid in equal monthly installments over either (A) a six-month period in the event of a termination that is not in connection with a change in control, or (B) a 12-month period in the event the termination occurs within 12 months following a change in control.

The Werner Employment Agreement also provides that in the event Dr. Werner becomes entitled to excess parachute payments within the meaning of Section 280G of the Code, such payments will be subject to a cut-back unless Dr. Werner would be better off on an after-tax basis receiving such payments and paying the excise tax.

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Under the Werner Employment Agreement, “cause” means generally: the conviction of or plea of nolo contendere to a felony; the commission of fraud, misappropriation or embezzlement against any person; the theft or misappropriation of Company property; the breach of the Werner Employment Agreement by Dr. Werner (subject to a cure right); the willful or gross neglect by Dr. Werner of his duties (subject to a cure right); willful or gross misconduct in Dr. Werner’s performance of his duties (subject to a cure right); or the willful violation of any material Company policy (subject to a cure right).

“Good Reason” means generally: a material diminution in authority, duties or responsibilities; a material diminution in base salary for longer than 12 months; or a material breach of the Werner Employment Agreement by the Company, provided that Dr. Werner provides notice to the Company within 90 days of the initial existence of one of the above conditions, the Company fails to cure such condition within 30 days, and Dr. Werner terminates his employment within 180 days following the initial existence of the condition.

“Change in Control” means generally: a merger or consolidation of the Company with another corporation (other than a transaction in which the voting securities outstanding prior to the transaction continue to represent more than 50% of the total voting power of the surviving entity after the transaction); the approval of a plan of complete liquidation of the Company or an agreement for the sale of all or substantially all of the Company’s assets; or a person or entity becomes the beneficial owner of securities of the Company representing 50% or more of the total voting power of the Company.

Prior Employment Agreement

On April 1, 2014, the Company entered into a written employment agreement, or the CEO Agreement, with Dr. Werner at an initial base annual salary of \$224,000, subject to adjustment by the board of directors. The CEO Agreement was superseded in full by the Werner Employment Agreement.

Under the terms of the CEO Agreement, Dr. Werner’s base annual salary as of December 31, 2019 was \$292,800. The CEO Agreement provided an initial 10-year fully vested option to purchase 43,708 shares of stock of the Company at an exercise price of \$0.38 per share. For so long as he remained employed by the Company, the Company agreed to grant an annual option to purchase 25,000 shares of stock of the Company at an exercise price equal to the fair market value of the shares at the date of the grant and to be vested pro rata in monthly installments over 12 months from the date of the grant, with vesting accelerating upon a change in control of the Company, subject generally to his continued service on such date and/or event. Bonuses, additional stock option grants or other compensation could be awarded from time to time at the sole discretion of the Company’s board of directors. Prior to the completion of the December 2020 initial public offering, Dr. Werner had received options to purchase up to a total of 196,685 shares of common stock of the Company pursuant to this provision.

The CEO Agreement provided that Dr. Werner would be eligible to participate in the benefit plans generally made available to other executive officers of the Company. In addition, he was entitled to (i) three weeks of paid vacation per year, (ii) reimbursement for discretionary expenditures (including life insurance premiums, automobile expenses, and country club memberships) up to a maximum of \$13,000 annually and (iii) reimbursement of certain relocation expenses in the event that the Company’s headquarters is relocated by more than 25 miles from Atlanta, Georgia, including house hunting expenses, three months of interim housing expenses, and reimbursement for four round trip airline tickets between Atlanta and the new Company headquarters.

The CEO Agreement provided that it shall continue until terminated (i) by mutual agreement; (ii) due to death or disability of Dr. Werner; (iii) by Dr. Werner without good reason upon four weeks written notice to the Company; (iv) by the Company without cause (as defined in the CEO Agreement) upon four weeks written notice to Dr. Werner; (v) by Dr. Werner for good reason (as defined in the CEO Agreement); or (vi) by the Company for cause. In the event of a termination for good reason or without cause, Dr. Werner was entitled to six months of salary continuation at his then-current base annual salary, reimbursement of COBRA premiums for

six months, accelerated vesting on options that would have vested in the six months following termination had he remained employed, and extended exercise periods for vested stock options. If the termination for good reason or without causes arose in connection with a change in control, the six months of salary continuation and reimbursement of COBRA premiums was extended to 12 months, and all options would become fully vested with extended exercise periods. The receipt of any benefits described above was subject to Dr. Werner's execution of a release.

In addition, the CEO Agreement provided for an excise tax gross-up in the event that Dr. Werner was subject to an excise tax under Sections 280G and 4999 of the Code upon a change in control.

Joseph Frattaroli, C.P.A.

Employment Agreement

On October 24, 2018, the Company entered into an employment agreement with Mr. Frattaroli, or the Frattaroli Employment Agreement, which became effective upon the closing of the December 2020 initial public offering. The Frattaroli Employment Agreement supersedes the prior consulting agreement as discussed under the subheading titled "Prior Consulting Agreement" in all respects. Under the Frattaroli Employment Agreement, Mr. Frattaroli receives an annual base salary of \$375,000 and is eligible to receive a discretionary annual target cash bonus of 30% of his annual base salary.

The Frattaroli Employment Agreement provides that Mr. Frattaroli will be eligible to participate in all group benefit plans generally made available to our other similarly-situated employees, including medical, dental and life insurance and pension plans, and that he will be entitled to 20 days of paid time off per year. In addition, following the completion of the December 2020 initial public offering, Mr. Frattaroli was granted a stock option to purchase 100,000 shares of Company common stock under our equity incentive plan, which will vest over a three year period subject to continued employment through each vesting date. The board of directors may also grant stock options to Mr. Frattaroli from time to time in its discretion.

The Frattaroli Employment Agreement provides that Mr. Frattaroli shall continue until terminated (i) without cause, (ii) for cause, (iii) upon death or disability, or (iv) resignation by Mr. Frattaroli (which may include a resignation for good reason following a change in control).

Pursuant to the Frattaroli Employment Agreement, Mr. Frattaroli is subject to a one-year post-termination non-compete and non-solicit of employees and clients. He is also bound by confidentiality provisions.

In the event that Mr. Frattaroli is terminated without cause, he will be eligible to receive: payment of any accrued annual bonus for the year prior to the year of termination; payment of the bonus the executive would have received based on the attainment of performance goals had he remained employed through the end of the year of termination, pro-rated based on the number of days in the termination year that he was employed by us (paid when the Company's other senior executives receive payment of their annual bonuses); nine months' salary continuation at his then-current monthly salary; and reimbursement for the difference between the cost of COBRA and Mr. Frattaroli's contribution for health insurance for up to nine months following termination.

In the event that Mr. Frattaroli is terminated without cause or good reason within 12 months following a change in control, he will be eligible to receive: payment of any accrued annual bonus for the year prior to the year of termination; payment of a pro-rated annual bonus at target for the year of termination based on the number of days in the termination year that he was employed by us; payment of one time his then-current annual bonus, at target; full vesting of any outstanding, unvested equity awards; 12 months base salary paid in a lump sum; and reimbursement for the difference between the cost of COBRA and Mr. Frattaroli's contribution for health insurance for up to 12 months following termination.

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The receipt of any termination benefits described above is subject to Mr. Frattaroli's execution of a release of claims in favor of the Company, a form of which is attached as an exhibit to the Frattaroli Employment Agreement.

To comply with Massachusetts law governing non-competition agreements, the Frattaroli Employment Agreement also provides for severance payments equal to half of Mr. Frattaroli's highest annual base salary during the two years preceding termination in the event of his termination for any reason other than a termination without cause, a resignation with good reason within 12 months following a change in control, or death. Such amounts will be paid (A) in equal installments over a nine month period in the event of a termination that is not in connection with a change in control, or (B) a lump sum in the event the termination occurs within 12 months following a change in control.

Under the Frattaroli Employment Agreement, "cause" means generally: the commission of an act of disloyalty, dishonesty, breach of trust, fraud, misconduct, bad faith, embezzlement, misappropriation of Company assets, or destruction of Company property; gross negligence in the performance of employment duties; refusal, failure or willful nonfeasance to perform employment duties; failure to comply with Company policy (subject to a cure right); conduct which is materially detrimental to the reputation, goodwill or business operation of the Company; the conviction for, or plea of nolo contendere, to a felony charge; or a breach of the Frattaroli Employment Agreement by Mr. Frattaroli (subject to a cure right).

"Good Reason" and "Change in Control" under the Frattaroli Employment Agreement have the same meanings as those provided in the Werner Employment Agreement, as described above.

Prior Consulting Agreement

On April 1, 2018, we entered into a consulting agreement, or the Flagship Consulting Agreement, with Flagship Consulting, Inc. ("Flagship"), a consulting entity controlled by Mr. Frattaroli, pursuant to which Flagship agreed to provide the following services to us as an independent contractor under the general direction of Dr. Werner: (i) perform duties for us as Chief Financial Officer, (ii) manage and execute the preparatory work required for a GAAP-compliant audit, (iii) evaluate, recommend and implement the necessary accounting practices to enable us to fulfill the requirements for quarterly financial and SEC regulatory filings, and (iv) participate in travel and road show meetings as part of our transition to a public entity. We also agreed to reimburse Flagship for its reasonable, out-of-pocket travel and other reasonable out-of-pocket expenses incurred in the rendition of the services, subject to certain conditions.

The Flagship Consulting Agreement had an initial term of 12 months, renewable in our sole discretion in 12-month periods thereafter until terminated by either party. Either party may terminate the Flagship Consulting Agreement at any time without cause upon 10 days' prior written notice to the other party, or immediately upon written notice to the other party of such other party's material breach of the Flagship Consulting Agreement. We may also terminate the Flagship Consulting Agreement immediately on account of any other act or omission on the part of the consultant that poses an adverse risk to us, our property and certain other persons and entities. The Flagship Consulting Agreement was superseded by the Frattaroli Employment Agreement effective upon the completion of our December 2020 initial public offering.

Under the terms of the Flagship Consulting Agreement, we agreed to pay Flagship \$12,500 per month in cash with an additional \$12,500 per month accruing on a convertible revolving demand promissory note in the aggregate principal amount of up to \$75,000 issued on April 3, 2018, or the 2018 Flagship Note. The 2018 Flagship Note accrued simple interest at 5% APR and matured upon the earlier to occur of (i) a significant transaction involving the Company, including an initial public offering, sale of substantially all assets or change of control of the Company, or a Significant Transaction, or (ii) June 30, 2019. Flagship had the option to convert any amount of the unpaid balance of the 2018 Flagship Note into shares of our common stock at a price equal to 80% of the fair market value at conversion. We issued an amended and restated note to Mr. Frattaroli, or the

A&R 2018 Flagship Note, to replace the 2018 Flagship Note, increasing the aggregate principal amount to up to \$150,000 and extending the maturity date to the earlier to occur of (i) a Significant Transaction, or (ii) December 31, 2019. The other provisions of the A&R 2018 Flagship Note, including the issue date, are the same, in all material respects, to the 2018 Flagship Note.

On December 31, 2019, we issued a second convertible revolving demand promissory note to Mr. Frattaroli in the aggregate principal amount of up to \$575,375, or the 2019 Flagship Note, entered into, in part, as full consideration for the A&R 2018 Flagship Note plus any amounts above and beyond the face amount of the A&R 2018 Flagship Note due by us to Flagship from the effective date of the Consulting Agreement until December 31, 2019. The 2019 Note accrued simple interest at 5% APR and matured upon the earlier to occur of (i) a Significant Transaction, or (ii) December 31, 2021. Mr. Frattaroli had the option to convert any amount of the unpaid balance of the 2019 Flagship Note into shares of our common stock at a price equal to the fair market value at conversion.

On August 31, 2020, the Company, Mr. Frattaroli and Flagship amended and restated the 2019 Flagship Note, or the 2020 Flagship Note, to (i) increase the amount to \$686,013, (ii) clarify that Flagship is the payee for the 2019 Flagship Note and that all amounts due under the 2019 Flagship Note are owed to Flagship and (iii) include an automatic conversion upon a closing of the Company's initial public offering on or prior to October 31, 2020 of the entire unpaid note balance into shares of our common stock at a price per share equal to the initial public offering price. On October 30, 2020, Flagship and the Company amended the 2020 Flagship Note to extend the date for automatic conversion upon a closing of the Company's initial public offering to December 31, 2020. The other provisions of the 2020 Flagship Note are the same, in all material respects, to the 2019 Flagship Note. On December 28, 2020, the unpaid principal and accrued interest on the 2020 Flagship note was converted into 44,143 shares of our common stock at a conversion price equal to the IPO price of \$10.00 per share.

Equity Compensation

In August 2020, we granted to Flagship two warrants to purchase shares of our common stock exercisable at \$5.90 per share in connection with the consulting services provided to the Company pursuant to the Flagship Consulting Agreement. Each warrant has a term of seven years. The first warrant for 21,854 shares of our common stock was fully vested as of the grant date. The second warrant for 150,000 shares of our common stock vests on the first anniversary of the grant date, August 25, 2021. Such warrants, along with the 2020 Flagship Note, collectively, are in full satisfaction of all rights to compensation of Flagship.

On December 22, 2020, in connection with our initial public offering, we granted to each of Dr. Werner and Mr. Frattaroli an option to purchase 100,000 shares of our common stock under our 2020 Equity Incentive Plan. These grants have a ten year term and exercise price of \$10.00 per share. One third of these grants will vest and become exercisable on the first anniversary of the closing of our initial public offering (i.e. December 28, 2021) and the remainder will vest and become exercisable in 24 equal monthly installments thereafter (commencing with January 1, 2022), subject generally to continued service through each date.

Employee Benefit and Stock Plans

Simple IRA Plan

We maintain a Simple IRA retirement savings plan for the benefit of our employees, including our named executive officers, who satisfy certain eligibility requirements. Under the Simple IRA, eligible employees may elect to defer a portion of their compensation, within the limits prescribed by the Code, on a pre-tax basis through contributions to the Simple IRA plan. The Simple IRA plan authorizes employer safe harbor matching contributions equal to 3% of covered compensation for eligible employees. The Simple IRA plan is intended to qualify under Sections 401(a) and 501(a) of the Code. As a tax-qualified retirement program, contributions to the Simple IRA plan and earnings on those contributions are not taxable to the employees until distributed from the Simple IRA plan.

2020 Equity Incentive Plan

On July 21, 2020, our board of directors and our stockholders approved the Inhibikase Therapeutics, Inc. 2020 Equity Incentive Plan, or the 2020 Plan. The principal provisions of the 2020 Plan are summarized below.

Administration

The 2020 Plan vests broad powers in a committee to administer and interpret the 2020 Plan. Our board of directors has initially designated the compensation committee to administer the 2020 Plan. Except when limited by the terms of the 2020 Plan, the compensation committee has the authority to, among other things: select the persons to be granted awards; determine the type, size and term of awards; establish performance objectives and conditions for earning awards; determine whether such performance objectives and conditions have been met; and accelerate the vesting or exercisability of an award. In its discretion, the compensation committee may delegate all or part of its authority and duties with respect to granting awards to one or more of our officers, subject to certain limitations and provided applicable law so permits.

Our board of directors may amend, alter or discontinue the 2020 Plan and the compensation committee may amend any outstanding award at any time; provided, however, that no such amendment or termination may adversely affect awards then outstanding without the holder's permission. In addition, any amendments seeking to increase the total number of shares reserved for issuance under the 2020 Plan or modifying the classes of participants eligible to receive awards under the 2020 Plan will require ratification by our stockholders in accordance with applicable law. Additionally, as described more fully below, neither the compensation committee nor the board of directors is permitted to reprice outstanding options or stock appreciation rights without shareholder consent.

Eligibility

Any of our employees, directors, consultants, and other service providers, or those of our affiliates, are eligible to participate in the 2020 Plan and may be selected by the compensation committee to receive an award.

Vesting

The compensation committee determines the vesting conditions for awards. These conditions may include the continued employment or service of the participant, the attainment of specific individual or corporate performance goals, or other factors as determined in the compensation committee's discretion, which we refer to collectively as the Vesting Conditions.

Shares of Stock Available for Issuance

Subject to certain adjustments, the maximum number of shares of common stock that may be issued under the 2020 Plan in connection with awards is 8,650,000 shares. In addition, any shares that would have otherwise been recycled under the 2011 Plan following the offering due to the expiration, forfeiture, cancellation or termination of outstanding awards under the 2011 Plan will instead become available for grants under the 2020 Plan. As of December 31, 2020, 3,369,144 shares were underlying outstanding awards under the 2011 Plan. All available shares may be utilized toward the grant of any type of award under the 2020 Plan. However, a maximum of 8,650,000 shares may be issued in respect of incentive stock options. The 2020 Plan imposes a \$250,000 limitation on the total grant date fair value of awards granted to any non-employee director in his or her capacity as a non-employee director in any single calendar year.

In the event of any merger, consolidation, reorganization, recapitalization, stock split, reverse stock split, split up, spin-off, combination of shares, exchange of shares, stock dividend, dividend in kind, or other like change in capital structure (other than ordinary cash dividends), or other similar corporate event or transaction

that affects our common stock, the compensation committee shall make adjustments to the number and kind of shares authorized by the 2020 Plan and covered under outstanding 2020 Plan awards as it determines appropriate and equitable.

Shares subject to 2020 Plan awards that expire without being fully exercised or that are otherwise forfeited, cancelled or terminated may again be made available for issuance under the 2020 Plan. However, shares withheld in settlement of a tax withholding obligation, or in satisfaction of the exercise price payable upon exercise of an option, will not again become available for issuance under the 2020 Plan.

Types of Awards

The following types of awards may be granted to participants under the 2020 Plan: (i) incentive stock options, or ISOs; (ii) nonqualified stock options, or NQOs and together with ISOs, options, (iii) stock appreciation rights, (iv) restricted stock, or (v) restricted stock units.

Stock Options. An option entitles the holder to purchase from us a stated number of shares of common stock. An ISO may only be granted to an employee of ours or our eligible affiliates. The compensation committee will specify the number of shares of common stock subject to each option and the exercise price for such option, provided that the exercise price may not be less than the fair market value of a share of common stock on the date the option is granted. Notwithstanding the foregoing, if ISOs are granted to any 10% stockholder, the exercise price shall not be less than 110% of the fair market value of common stock on the date the option is granted.

Generally, options may be exercised in whole or in part through a cash payment. The compensation committee may, in its sole discretion, permit payment of the exercise price of an option in the form of previously acquired shares based on the fair market value of the shares on the date the option is exercised, through means of “net settlement,” which involves the cancellation of a portion of the option to cover the cost of exercising the balance of the option or by such other means as it deems acceptable.

All options shall be or become exercisable in accordance with the terms of the applicable award agreement. The maximum term of an option shall be determined by the compensation committee on the date of grant but shall not exceed 10 years (5 years in the case of ISOs granted to any 10% stockholder). In the case of ISOs, the aggregate fair market value (determined as of the date of grant) of common stock with respect to which such ISOs become exercisable for the first time during any calendar year cannot exceed \$100,000. ISOs granted in excess of this limitation will be treated as non-qualified stock options.

Stock Appreciation Rights. A stock appreciation right represents the right to receive, upon exercise, any appreciation in a share of common stock over a particular time period. The base price of a stock appreciation right shall not be less than the fair market value of a share of common stock on the date the stock appreciation right is granted. This award is intended to mirror the benefit the participant would have received if the compensation committee had granted the participant an option. The maximum term of a stock appreciation right shall be determined by the compensation committee on the date of grant but shall not exceed 10 years. Distributions with respect to stock appreciation rights may be made in cash, shares of common stock, or a combination of both, at the compensation committee’s discretion.

Unless otherwise provided in an award agreement or determined by the compensation committee, if a participant terminates employment with us (or our affiliates) due to death or disability, the participant’s unexercised options and stock appreciation rights may be exercised, to the extent they were exercisable on the termination date, for a period of twelve months from the termination date or until the expiration of the original award term, whichever period is shorter. If the participant terminates employment with us (or our affiliates) for cause, (i) all unexercised options and stock appreciation rights (whether vested or unvested) shall terminate and be forfeited on the termination date, and (ii) any shares in respect of exercised options or stock appreciation

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rights for which we have not yet delivered share certificates will be forfeited and we will refund to the participant the option exercise price paid for those shares, if any. If the participant's employment terminates for any other reason, any vested but unexercised options and stock appreciation rights may be exercised by the participant, to the extent exercisable at the time of termination, for a period of ninety days from the termination date (or such time as specified by the compensation committee at or after grant) or until the expiration of the original option or stock appreciation right term, whichever period is shorter. Unless otherwise provided by the compensation committee, any options and stock appreciation rights that are not exercisable at the time of termination of employment shall terminate and be forfeited on the termination date.

Restricted Stock. A restricted stock award is a grant of shares of common stock, which are subject to forfeiture restrictions during a restriction period. The compensation committee will determine the price, if any, to be paid by the participant for each share of common stock subject to a restricted stock award. The restricted stock may be subject to Vesting Conditions. If the specified Vesting Conditions are not attained, the participant will forfeit the portion of the restricted stock award with respect to which those conditions are not attained, and the underlying common stock will be forfeited to us. At the end of the restriction period, if the Vesting Conditions have been satisfied, the restrictions imposed will lapse with respect to the applicable number of shares. Unless otherwise provided in an award agreement or determined by the compensation committee, upon termination a participant will forfeit all restricted stock that then remains subject to forfeiture restrictions.

Restricted Stock Units. Restricted stock units are granted in reference to a specified number of shares of common stock and entitle the holder to receive, on the achievement of applicable Vesting Conditions, shares of common stock. Unless otherwise provided in an award agreement or determined by the Compensation committee, upon termination a participant will forfeit all restricted stock units that then remain subject to forfeiture.

Change in Control

In the event of a change in control, the compensation committee may, on a participant-by-participant basis: (i) cause any or all outstanding awards to become vested and immediately exercisable (as applicable), in whole or in part; (ii) cause any outstanding option or stock appreciation right to become fully vested and immediately exercisable for a reasonable period in advance of the change in control and, to the extent not exercised prior to that change in control, cancel that option or stock appreciation right upon closing of the change in control; (iii) cancel any unvested award or unvested portion thereof, with or without consideration; (iv) cancel any award in exchange for a substitute award; (v) redeem any restricted stock or restricted stock unit for cash and/or other substitute consideration with value equal to the fair market value of an unrestricted share on the date of the change in control; (vi) cancel any outstanding option or stock appreciation right with respect to all common stock for which the award remains unexercised in exchange for a cash payment equal to the excess (if any) of the fair market value of the common stock subject to the option or stock appreciation right over the exercise price of the option or stock appreciation right; (vii) impose vesting terms on cash or substitute consideration payable upon cancellation of an award that are substantially similar to those that applied to the cancelled award immediately prior to the change in control, and/or earn-out, escrow, holdback or similar arrangements, to the extent such arrangements are applicable to any consideration paid to stockholders in connection with the change in control; (viii) take such other action as the compensation committee shall determine to be reasonable under the circumstances; and/or (ix) in the case of any award subject to Section 409A of the Code, the compensation committee shall only be permitted to use discretion to alter the settlement timing of the award to the extent that such discretion would be permitted under Section 409A of the Code.

Repricing

Neither our board of directors nor the compensation committee may, without obtaining prior approval of our stockholders: (i) implement any cancellation/re-grant program pursuant to which outstanding options or stock appreciation rights under the 2020 Plan are cancelled and new options or stock appreciation rights are granted in

replacement with a lower exercise price per share; (ii) cancel outstanding options or stock appreciation rights under the 2020 Plan with an exercise price per share in excess of the then current fair market value per share for consideration payable in our equity securities; or (iii) otherwise directly reduce the exercise price in effect for outstanding options or stock appreciation rights under the 2020 Plan.

Miscellaneous

Generally, awards granted under the 2020 Plan shall be nontransferable except by will or by the laws of descent and distribution. No participant shall have any rights as a stockholder with respect to shares covered by options or restricted stock units, unless and until such awards are settled in shares of common stock. The Company's obligation to issue shares or to otherwise make payments in respect of 2020 Plan awards will be conditioned on the Company's ability to do so in compliance with all applicable laws and exchange listing requirements. The awards will be subject to our recoupment and stock ownership policies, as may be in effect from time to time. The 2020 Plan will expire 10 years after it becomes effective.

2011 Equity Incentive Plan

Prior to the closing of our December 2020 initial public offering, we maintained the 2011 Plan, pursuant to which we made grants of non-qualified stock options to eligible employees and other service providers. Generally, options granted under the 2011 Plan have a term of 10 years or less, vested monthly over a 12-month period and remain exercisable for 30 days after the date of grantee's cessation of service with the Company, and three months upon disability or death. However, Daniel Kalman, a scientific founder of the Company, received a fully-vested non-qualified stock option grant with respect to 1,748,312 shares of our common stock in 2011, which option will remain exercisable through the option expiration date, which is the 20th anniversary of the date of grant, notwithstanding his earlier cessation of service. Directors' options granted pursuant to the 2011 Plan remain exercisable until their expiration date, which is the 10th anniversary of the date of the grant including after a director's cessation of service.

Options granted pursuant to the 2011 Plan may be exercised upon the delivery of written notice to the Company by the optionee, along with payment in cash or check, or such other method as the committee administering the 2011 Plan allowed in its discretion. Under the 2011 Plan, there is no automatic acceleration of vesting of the options on a change in control, but the compensation committee has the discretion to, among other things, accelerate the vesting of outstanding options, provide that unexercised options expire on the change in control, require the acquirer to grant replacement awards in lieu of the existing options, or terminate the options in exchange for a cash payment.

Equity Compensation Plan Information

The table below sets forth information with respect to compensation plans under which equity securities of the Company are authorized for issuance as of December 31, 2020:

<u>Plan Category</u>	<u>Number of Securities to be issued upon exercise of outstanding options, warrants and rights (a)</u>	<u>Weighted-average exercise price of outstanding options, warrants and rights (b)</u>	<u>Securities available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)</u>
Equity Compensation Plans approved by stockholders			
Stock Options	3,596,444	\$ 2.27	8,422,700
Warrants	721,913	\$ 5.83	—
Equity Compensation Plans not approved by stockholders	—	—	—

We maintain the 2020 Plan, a stock option plan, which was initially approved by our stockholders on July 21, 2020 and which became effective immediately prior to our December 2020 initial public offering. Employees, officers, directors, consultants and advisors are eligible to participate in the 2020 Plan. As of April 30, 2021, there were 8,354,072 shares reserved for issuance under the 2020 Plan that remained available. Prior to our December 2020 initial public offering we maintained the 2011 Plan. We ceased making new grants under the 2011 Plan upon effectiveness of the 2020 Plan. However, options that were previously granted under the 2011 Plan will remain subject to the terms and conditions contained in that plan. See also the section titled “Warrants” for additional information on the warrants granted to Kubera North America, Inc., to Flagship Consulting, Inc. and to Frank McDaniel, our former outside counsel.

Other Benefits

Our named executive officers who are full time employees are eligible to participate in our medical and dental insurance plans, which are currently fully paid by us. These benefits are paid by the Company at 90% following the completion of the December 2020 initial public offering, with the remainder to be paid by the eligible employee. In addition, it is the Company’s practice to reimburse Dr. Werner \$418.76 per month in respect of premiums that he pays on his life insurance policy. The Company also paid Dr. Werner \$11,926 in 2020 for automobile expenses.

In 2014, the Board approved a special supplement to Dr. Werner’s salary of \$56,400 annually to reimburse him for certain tax liabilities previously incurred by him when the Company was still a limited liability company. These supplemental payments ceased in March of 2021.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements, with our directors and executive officers, including those discussed in the sections titled “Management” and “Executive Compensation,” and the registration rights described in the section titled “Description of Capital Stock — Registration Rights,” the following is a description of each transaction since January 1, 2019 or any currently proposed transaction in which:

- we have been or are to be a party to;
- the amount involved exceeded or exceeds \$120,000 or 1% of the average of our total assets as of the end of the last two completed fiscal years; and
- any of our directors, executive officers or holders of more than 5% of our outstanding capital stock, or any immediate family member of, or person sharing the household with, any of these individuals or entities, had or will have a direct or indirect material interest.

For information on our compensation arrangements, including employment, termination of employment and change in control arrangements, with our directors and executive officers, see the sections titled “Management” and “Executive Compensation,” and the registration rights described in the section titled “Description of Capital Stock — Registration Rights.”

Consulting Agreement

As described in the section titled “Executive Compensation,” Flagship, a consulting entity controlled by Mr. Frattaroli, provided chief financial officer consulting services prior to the Company’s December 2020 initial public offering. The compensation arrangements with Flagship prior to the Company’s initial public offering, including certain warrants issued to the entity in August 2020, are described in the section titled “Executive Compensation” above. The Flagship Consulting Agreement has been superseded by the Frattaroli Employment Agreement effective upon the closing of the Company’s December 2020 initial public offering.

Indemnification Agreements

We have entered into separate indemnification agreements with each of our directors and executive officers, in addition to the indemnification that is provided for in our amended and restated certificate of incorporation and amended and restated bylaws. The indemnification agreements and our amended restated certificate of incorporation and amended and restated bylaws that became effective upon the completion of the Company’s December 2020 initial public offering require us to indemnify our directors, executive officers and certain controlling persons to the fullest extent permitted by Delaware law. See the section titled “Executive Compensation — Limitation of Liability and Indemnification” for additional information.

Stockholder Loans

On February 5, 2020, or the Issue Date, the Company issued a note payable to its CEO, or the CEO Note, in the aggregate principal amount of \$245,250 in exchange for cash. The net proceeds of \$245,250 were used as working capital by the Company. The note carries a stated interest rate of 1.59%, compounded semi-annually, and matures on the earlier of the sixth month following the Issue Date or the date the Company has sufficient funds to repay the CEO Note.

The Company has the right to prepay the CEO Note at any time without penalty, and any payments due under the CEO Note are applied first to any costs and expenses due to the CEO, second to accrued but unpaid interest, and third to pay the unpaid principal balance. The CEO Note also contains certain terms and conditions that constitute an event of default, including the Company’s failure to pay the principal or interest when due and

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such amount remains unpaid for 10 business days after the due date or the Company makes a general assignment for the benefit of its creditors or applies to any tribunal for the appointment of a trustee or receiver of a substantial part of its assets, or commences any proceedings relating to the Company under bankruptcy, reorganization, arrangement, insolvency, readjustment of debts, dissolution, or other liquidation law of any jurisdiction, among other events. If an event of default occurs or is continuing, the CEO may, by giving notice in writing to the Company, declare the entire unpaid principal of the CEO Note due and payable immediately and the Company shall issue a warrant to the CEO to purchase that number of shares of Common Stock equal to 150% of the value of the loan at an exercise price of \$4.87 per share in the case of any default. In the event of a default, the warrant will remain in effect even after the loan is repaid.

The CEO Note also contains customary representations, warranties and covenants, and other terms and conditions.

The Company assessed the terms and features of the CEO Note and determined that none of the terms and features represented embedded derivatives that require bifurcation.

On June 13, 2020, the holder of the CEO Note and the Company entered into a restated agreement, or the CEO Restated Note. The CEO Restated Note increased the principal amount of the CEO Note to \$248,911 to account for 1.59% APR simple interest accrued, extended the stated maturity date of the CEO Note to the earlier to occur of the 30th month following the Issue Date or the date the Company has sufficient funds to repay the CEO Restated Note. The Company and its CEO have agreed that the CEO Restated Note will not be repaid for a minimum of 12 months following the closing of the December 2020 initial public offering. The Issue Date is unchanged. In addition, the interest rate was reduced, effective as of the Issue Date, from 1.59% APR to 0.25%, compounded semi-annually. The CEO Restated Note also changed the exercise price of the warrant from \$4.87 to \$4.81 per share in the case of any default. The other provisions of the CEO Restated Note are the same, in all material respects, to the CEO Note.

PRINCIPAL STOCKHOLDERS

The following table sets forth the beneficial ownership of our common stock as of June 7, 2021 for:

- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock;
- each of the named executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially owned, subject to community property laws where applicable. The information does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Sections 13(d) and 13(g) of the Exchange Act.

We have based our calculation of the percentage of beneficial ownership prior to the offering on 10,133,345 shares of our common stock outstanding on June 7, 2021. We have deemed shares of our common stock subject to stock options that are currently exercisable or exercisable within 60 days of June 7, 2021, to be outstanding and to be beneficially owned by the person holding the stock option for the purpose of computing the percentage ownership of that person. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Inhibikase Therapeutics, Inc., 3350 Riverwood Parkway SE, Suite 1900, Atlanta, GA 30339.

Name of Beneficial Owner	Shares Beneficially Owned Prior to the Offering		Shares Beneficially Owned After the Offering(**)	
	Shares	Percentage	Shares	Percentage
Named Executive Officers and Directors				
Milton H. Werner, Ph.D.(1)	5,424,705	52.7%	5,424,705	29.7%
Joseph Frattaroli, C.P.A.(2)	65,997	*	65,997	*
Dennis Berman(3)	129,302	1.3%	129,302	*
Roy Freeman, M.D.(4)	131,123	1.3%	131,123	*
Paul Grint, M.D.(5)	129,302	1.3%	129,302	*
Elizabeth O'Farrell(6)	131,123	1.3%	131,123	*
All executive officers and directors as a group (six persons)	6,011,552	55.5%	6,011,552	31.9%
5% Stockholders				
Duke University	611,909	6.0%	611,909	3.4%
Emory University	830,448	8.2%	830,448	4.6%
Daniel Kalman, Ph.D.(7)	1,748,312	14.7%	1,748,312	8.8%

(*) Represents beneficial ownership of less than one percent.

(**) Based on 18,133,345 shares of common stock assuming 8,000,000 shares of common stock to be issued in this offering.

- (1) Consists of (a) 5,271,727 shares held of record by Milton H. Werner, Ph.D. and (b) 152,978 shares underlying options exercisable within 60 days of June 7, 2021.
- (2) Consists of (a) 44,143 shares held of record by Flagship Consulting, Inc., an entity controlled by Mr. Frattaroli, and (b) 21,854 shares underlying warrants exercisable within 60 days of June 7, 2021.
- (3) Consists of 129,302 shares underlying options exercisable within 60 days of June 7, 2021.
- (4) Consists of 131,123 shares underlying options exercisable within 60 days of June 7, 2021.
- (5) Consists of 129,302 shares underlying options exercisable within 60 days of June 7, 2021.
- (6) Consists of 131,123 shares underlying options exercisable within 60 days of June 7, 2021.
- (7) Consists of 1,748,312 shares underlying options exercisable within 60 days of June 7, 2021. The information regarding Dr. Kalman is based solely on a Schedule 13G filed by Dr. Kalman with the SEC on March 23, 2021.

DESCRIPTION OF CAPITAL STOCK

The following descriptions of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and the amended and restated bylaws. Copies of these documents are filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

Our authorized capital stock will consist of 110,000,000 shares of capital stock, par value \$0.001 per share, of which:

- 100,000,000 shares are designated as common stock; and
- 10,000,000 shares are designated as preferred stock.

As of June 7, 2021, there were 10,133,345 shares of our common stock outstanding held by 31 stockholders of record. On August 24, 2020 we effected a 1-for-1.14396 reverse stock split of the issued and outstanding shares of our common stock. Except as otherwise indicated, all of the common stock information in this prospectus gives effect to the reverse stock split.

Authorized Capitalization

Common Stock

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our amended and restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting rights. Because of this, the holders of a plurality of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose. With respect to matters other than the election of directors, at any meeting of the stockholders at which a quorum is present or represented, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at such meeting and entitled to vote on the subject matter shall be the act of the stockholders, except as otherwise required by law. The holders of a majority of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders.

Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the 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 in the future.

Fully Paid and Non-assessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering, upon payment and delivery in accordance with the underwriting agreement, will be fully paid and non-assessable.

Preferred Stock

Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, redemption rights, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

Options

As of March 31, 2021, we had outstanding options to purchase an aggregate of 3,665,072 shares of our common stock, with a weighted-average exercise price of approximately \$2.38 per share, under our 2011 Plan.

Warrants

Kubera North America, Inc., or Kubera, was granted a warrant in October 2018 to purchase 4.9% of our issued and outstanding shares of common stock at the time of issuance of the warrant, or 400,866 shares. The warrant has a term of 7 years, is exercisable at \$4.19 per share, and vests 1/3 upon issuance of the warrant with the remaining 2/3 vesting in equal amounts on a monthly basis for 3 years. On June 24, 2020 the Kubera warrant was transferred to Kubera N.A. LLC, an affiliate of Kubera.

Georgia Research Alliance, Inc. was granted a warrant to purchase 21,854 shares of our common stock in January 2017. The warrant had a term of 10 years and was exercisable at \$2.31 per share. On August 25, 2020, we issued to Georgia Research Alliance, Inc. 13,301 shares of our common stock in satisfaction of a net settled exercise of 21,854 warrant shares.

Flagship Consulting, Inc., in connection with consulting services provided to us, was granted two warrants in August 2020 to purchase shares of our common stock exercisable at \$5.90 per share. Each warrant has a term of seven years. The first warrant for 21,854 shares of our common stock was fully vested as of the grant date. The second warrant for 150,000 shares of our common stock vests on the first anniversary of the grant date, August 25, 2021.

Frank McDaniel, our former outside counsel, was granted in January 2019 a warrant to purchase 20,533 shares of our common stock and is exercisable at \$4.79 per share, and in March 2020 a warrant to purchase 26,225 shares of our common stock. Each warrant has a term of 7 years and is exercisable at \$5.57 per share.

In connection with our December 2020 initial public offering, an investor who in June and July 2018 purchased a total of 204,870 shares of our common stock received warrants to purchase our common stock in an amount equal to one-half the number of the common shares of our common stock originally purchased by such investor, or 102,435 shares, with an exercise price equal to \$10.00 per share, or the Late IPO Warrants. The Late IPO Warrants are exercisable at their holder's sole direction for a period of ten (10) years.

Registration Rights

The shares underlying the warrant granted to Kubera have piggyback registration rights in connection with our registration of securities under the Securities Act. If we propose to register the offer and sale of shares of our common stock and the registration form to be used may be used for the registration of warrant shares

under the Securities Act, Kubera can request that we include its shares in such registration, subject to certain marketing and other limitations, including the right of the underwriters to limit the number of shares included in any such registration statement under certain circumstances. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related to sale of securities to our employees pursuant to any employee benefit plan or other transaction covered by Rule 145 promulgated under the Securities Act, Kubera is entitled to notice of the registration and has the right, subject to certain limitations, to include its shares in the registration. No registration rights will be exercised in connection with this offering.

Anti-Takeover Effects of Certain Provisions of Delaware Law, Our Amended and Restated Certificate of Incorporation and Our Amended and Restated Bylaws

Certain provisions of Delaware law and certain provisions that are included in our amended and restated certificate of incorporation and amended and restated bylaws summarized below may be deemed to have an anti-takeover effect and may delay, deter, or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might result in a premium being paid over the market price for the shares held by stockholders.

Preferred Stock

Our amended and restated certificate of incorporation contains provisions that permit our board of directors to issue, without any further vote or action by the stockholders, shares of preferred stock in one or more series and, with respect to each such series, to fix the number of shares constituting the series and the designation of the series, the voting rights (if any) of the shares of the series, and the powers, preferences or relative, participation, optional and other special rights, if any, and any qualifications, limitations or restrictions, of the shares of such series. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing change in our control or other corporate action.

Classified board of directors

Our amended and restated certificate of incorporation provides that our board of directors is divided into three classes, designated Class I, Class II, and Class III. Each class has an equal number of directors, as nearly as possible, consisting of one-third of the total number of directors constituting our entire board of directors. The term the initial Class I directors shall terminate on the date of the 2021 annual meeting, the term of the initial Class II directors shall terminate on the date of the 2022 annual meeting, and the term of the initial Class III directors shall terminate on the date of the 2023 annual meeting. At each annual meeting of stockholders beginning in 2021, successors to the class of directors whose term expires at that annual meeting will be elected for a three-year term.

Removal of Directors

Our amended and restated certificate of incorporation provides that stockholders may only remove a director for cause by a vote of no less than a majority of the shares present in person or by proxy at the meeting and entitled to vote.

Director Vacancies

Our amended and restated certificate of incorporation authorizes only our board of directors to fill vacant directorships.

No Cumulative Voting

Our amended and restated certificate of incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

Special Meetings of Stockholders

Our amended and restated certificate of incorporation and amended and restated bylaws provide that, except as otherwise required by law, special meetings of the stockholders may be called only by an officer at the request of a majority of our board of directors, by the chairperson or president of our board of directors, or by our Chief Executive Officer.

Advance Notice Procedures for Director Nominations

Our amended and restated bylaws provide that stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders must provide timely notice thereof in writing. To be timely, a stockholder's notice generally will have to be delivered to and received at our principal executive offices before notice of the meeting is issued by the secretary of the company, with such notice being served not less than 90 nor more than 120 days before the meeting. Although the amended and restated bylaws do not give our board of directors the power to approve or disapprove stockholder nominations of candidates to be elected at an annual meeting, the amended and restated bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the company.

Action by Written Consent

Our amended and restated certificate of incorporation and amended and restated bylaws provide that any action to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by written consent.

Amending our Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation may be amended or altered in any manner provided by the DGCL. Certain provisions of our amended and restated certificate of incorporation may only be amended or altered in any manner by the affirmative vote of 66 2/3% of the then-outstanding common stock. Our amended and restated bylaws may not be amended by stockholders. Additionally, our amended and restated certificate of incorporation provides that our bylaws may be amended, altered, or repealed by our board of directors.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuances without stockholder approval, except as required by the listing standards of Nasdaq, and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of the company by means of a proxy contest, tender offer, merger or otherwise.

Exclusive Forum

Our amended and restated certificate of incorporation provides that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of fiduciary duty, any action asserting a claim arising pursuant to the DGCL, any action regarding our amended and restated

certificate of incorporation or our amended and restated bylaws or any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. The choice of the Court of Chancery of the State of Delaware as the sole and exclusive forum for any derivative action or proceeding brought on our behalf does not apply to suits seeking to enforce a duty or liability created by the Securities Act or Exchange Act. See “Risk Factors — Risks Related to Our Operations — *Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.*”

Business Combinations with Interested Stockholders

Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an “interested stockholder” (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless (i) prior to such time the board of directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (A) by persons who are directors and also officers of such corporation and (B) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) at or subsequent to such time the business combination is approved by the board of directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we must indemnify our directors and officers to the fullest extent authorized by the DGCL. We are expressly authorized to carry, and we do carry, directors’ and officers’ insurance providing coverage for our directors, officers and certain employees for some liabilities. We believe that these indemnification provisions and insurance are useful to attract and retain qualified directors and executive directors.

The limitation on liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Listing

Our common stock is listed the Nasdaq Capital Market under the symbol “IKT.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. The transfer agent and registrar’s address is 6201 15th Ave, Brooklyn, NY 11219.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock acquired in this offering by a “non-U.S. holder” (as defined below), but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the United States Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date of this prospectus. These authorities may be changed, possibly retroactively, so as to result in U.S. federal income tax consequences different from those set forth below. We have not sought, and do not intend to seek, any ruling from the Internal Revenue Service, or IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any state or local or non-U.S. jurisdiction or under U.S. federal gift and estate tax rules, or arising out of other non-income tax rules, except to the limited extent set forth below. In addition, this discussion does not address tax considerations applicable to an investor’s particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies, regulated investment companies, real estate investment trusts or other financial institutions;
- persons subject to the alternative minimum tax or the tax on net investment income;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an applicable financial statement;
- tax-exempt organizations or governmental organizations;
- pension plans and tax-qualified retirement plans;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnership for U.S. federal income tax purposes (and investors therein);
- brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- certain former citizens or long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, “straddle,” “conversion transaction” or other risk reduction transaction or integrated investment;
- persons who hold or receive our common stock pursuant to the exercise of any option or otherwise as compensation;
- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment); and
- persons deemed to sell our common stock under the constructive sale provisions of the Code.

In addition, if a partnership, entity or arrangement classified as a partnership or flow-through entity for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner generally will depend on the

status of the partner and upon the activities of the partnership or other entity. A partner in a partnership or other such entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other such entity, as applicable.

This summary is for informational purposes only and is not tax advice. Each non-U.S. holder is urged to consult its own tax advisor with respect to the application of the U.S. federal income tax laws to its particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal gift or estate tax rules or under the laws of any state, local, non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Non-U.S. Holder Defined

For purposes of this discussion, a “non-U.S. holder” is a beneficial owner of our common stock that, for U.S. federal income tax purposes, is neither a “U.S. person” nor an entity (or arrangement) treated as a partnership. A “U.S. person” is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation or other entity taxable as a corporation created or organized in the United States or under the laws of the United States or any political subdivision thereof, or otherwise treated as such for U.S. federal income tax purposes;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a U.S. court and that has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (y) that has made a valid election under applicable Treasury Regulations to be treated as a U.S. person.

Distributions

As described in the section titled “Dividend Policy,” we have never declared or paid cash dividends on our common stock, and we do not anticipate paying any dividends on our common stock following the completion of this offering. However, if we do make distributions of cash or property on our common stock to non-U.S. holders, such distributions 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. To the extent those distributions exceed both our current and our accumulated earnings and profits, the excess will first constitute a return of capital and will reduce each non-U.S. holder’s adjusted tax basis in our common stock, but not below zero. Any additional excess will then be treated as capital gain from the sale of stock, as discussed under “Gain on Disposition of Common Stock.”

Subject to the discussions below on effectively connected income, and backup withholding and Compliance Act, or FATCA, withholding, any dividend paid to a non-U.S. holder generally will be subject to U.S. federal withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty between the United States and such non-U.S. holder’s country of residence. In order to receive a reduced treaty rate, such non-U.S. holder must provide the applicable withholding agent with an IRS Form W-8BEN or W-8BEN-E or other appropriate version of IRS Form W-8 certifying qualification for the reduced treaty rate. A non-U.S. holder of shares of our common stock eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS. If such non-U.S. holder holds our common stock through a financial institution or other agent acting on the non-U.S. holder’s behalf, the non-U.S. holder will be required to provide appropriate documentation to such agent, which then will be required to provide certification to the

applicable withholding agent, either directly or through other intermediaries. Each non-U.S. holder should consult its own tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Dividends received by a non-U.S. holder that are treated as effectively connected with such non-U.S. holder's conduct of a trade or business within the United States (and, if an applicable income tax treaty so provides, such non-U.S. holder maintains a permanent establishment or fixed base in the United States to which such dividends are attributable) are generally exempt from the 30% U.S. federal withholding tax, subject to the discussion below on backup withholding and FATCA withholding. To claim this exemption, a non-U.S. holder must provide the applicable withholding agent with a properly executed IRS Form W-8ECI or other applicable IRS Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to U.S. federal withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits, subject to an applicable income tax treaty providing otherwise. In addition, if a non-U.S. holder is a corporation, dividends such non-U.S. holder receives that are effectively connected with its conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty between the United States and such non-U.S. holder's country of residence. Each non-U.S. holder should consult its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock, including any applicable tax treaties that may provide for different rules.

Gain on Disposition of Common Stock

Subject to the discussion below regarding backup withholding and FATCA withholding, a non-U.S. holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with such non-U.S. holder's conduct of a U.S. trade or business (and, if an applicable income tax treaty so provides, such non-U.S. holder maintains a permanent establishment or fixed base in the United States to which such gain is attributable);
- such non-U.S. holder is an individual who is present in the United States for an aggregate 183 days or more during the taxable year in which the sale or disposition occurs and certain other conditions are met; or
- our common stock constitutes a United States real property interest, or USRPI, by reason of our status as a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes.

We believe that we are not currently and will not become a USRPHC for U.S. federal income tax purposes, and the remainder of this discussion so assumes. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our U.S. and worldwide real property interests plus our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, your common stock will be treated as U.S. real property interests only if you actually (directly or indirectly) or constructively hold more than 5% of such regularly traded common stock at any time during the shorter of the five-year period preceding your disposition of, or your holding period for, our common stock.

A non-U.S. holder described in the first bullet above will be required to pay U.S. federal income tax on the gain derived from the sale (net of certain deductions and credits) under regular graduated U.S. federal income tax rates. Such a non-U.S. holder that is a corporation may be subject to the branch profits tax at a 30% rate on a portion of its effectively connected earnings and profits for the taxable year that are attributable to such gain, as adjusted for certain items. A lower rate may be specified by an applicable income tax treaty.

A non-U.S. holder described in the second bullet above will be subject to tax at 30% (or such lower rate specified by an applicable income tax treaty) on the gain derived from the sale, which gain may be offset by U.S.

source capital losses of such non-U.S. holder for the taxable year, provided such non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

Each non-U.S. holder should consult its own tax advisor regarding any applicable income tax or other treaties that may provide for different rules.

Information Reporting and Backup Withholding

Generally, we or an applicable withholding agent must report annually to the IRS the amount of dividends paid to a non-U.S. holder, such non-U.S. holder's name and address, and the amount of tax withheld, if any. A similar report is sent to such non-U.S. holder. Pursuant to any applicable income tax treaty or other agreement, the IRS may make such report available to the tax authority in such non-U.S. holder's country of residence.

Dividends paid by us (or our paying agent) to a non-U.S. holder may also be subject to backup withholding at a current rate of 24%.

Such information reporting and backup withholding requirements may be avoided, however, if such non-U.S. holder establishes an exemption by providing a properly executed, and applicable, IRS Form W-8, or otherwise establishes an exemption. Generally, such information reporting and backup withholding requirements will not apply to a non-U.S. holder where the transaction is effected outside the United States, through a non-U.S. office of a non-U.S. broker. Notwithstanding the foregoing, backup withholding and information reporting may apply, however, if the applicable withholding agent has actual knowledge, or reason to know, that such non-U.S. holder is a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance Act (FATCA)

Sections 1471 to 1474 of the Code, Treasury Regulations issued thereunder and related official IRS guidance, commonly referred to as FATCA, generally impose a U.S. federal withholding tax of 30% on dividends on our common stock paid to a "foreign financial institution" (as defined under FATCA, and which may include banks, traditional financial institutions, investment funds, and certain holding companies), unless such institution enters into an agreement with the U.S. Department of the Treasury to, among other things, identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined under FATCA), report annually substantial information about such accounts, and withhold on certain payments to non-compliant foreign financial institutions and certain other account holders. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on our common stock paid to a "non-financial foreign entity" (as specially defined under FATCA), unless such entity provides identifying information regarding each direct or indirect "substantial United States owners" (as defined under FATCA), certifies that it does not have any substantial United States owners, or otherwise establishes an exemption. Accordingly, the institution or entity through which our common stock is held will affect the determination of whether such withholding is required.

The withholding obligations under FATCA generally apply to dividends on our common stock. Such withholding will apply regardless of whether the beneficial owner of the payment otherwise would be exempt from withholding pursuant to an applicable tax treaty with the United States, the Code, or other exemptions described above. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes.

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Under proposed regulations, FATCA withholding on payments of gross proceeds has been eliminated. These proposed regulations are subject to change.

An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Prospective investors are encouraged to consult with their own tax advisors regarding the application of FATCA withholding to their investment in, and ownership and disposition of, our common stock.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice to investors in their particular circumstances. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

UNDERWRITING

ThinkEquity, a division of Fordham Financial Management, Inc. (“ThinkEquity” or the “representative”), is acting as the representative of the underwriters of the offering. We have entered into an underwriting agreement dated _____, 2021 with the representative. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to each underwriter named below, and each underwriter named below has severally agreed to purchase, at the public offering price less the underwriting discounts set forth on the cover page of this prospectus, the number of shares of common stock at the public offering price, less the underwriting discounts and commissions, as set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

<u>Underwriter</u>	<u>Number Shares of Common Stock</u>
ThinkEquity, a division of Fordham Financial Management, Inc.	
JonesTrading Institutional Services LLC	
Total	

The underwriting agreement provides that the obligations of the underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to various conditions and representations and warranties, including the approval of certain legal matters by its counsel and other conditions specified in the underwriting agreement. The shares of common stock are offered by the underwriters, subject to prior sale, when, as and if issued to and accepted by it. The underwriters reserve the right to withdraw, cancel or modify the offer to the public and to reject orders in whole or in part. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares of common stock are taken, other than those shares of common stock covered by the over-allotment option described below.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

Over-Allotment Option

We have granted a 45-day option to the representative of the underwriters to purchase up to _____ additional shares of our common stock at a public offering price of \$ _____ per share, solely to cover over-allotments, if any. The representative of the underwriters may exercise this option for 45 days from the date of this prospectus solely to cover sales of shares of common stock by the underwriters in excess of the total number of shares of common stock set forth in the table above. If any of these additional shares are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

Discounts and Commissions

The representative has advised us that the underwriters propose initially to offer the shares of common stock to the public at the public offering price set forth on the cover page of this prospectus and to dealers at those prices less a concession not in excess of \$ _____ per share of common stock. If all of the shares of common stock offered by us are not sold at the public offering price, the underwriters may change the offering price and other selling terms by means of a supplement to this prospectus.

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The following table shows the public offering price, underwriting discounts and commissions and proceeds before expenses to us. The information assumes either no exercise or full exercise of the over-allotment option we granted to the underwriter.

	Per Share	Total Without Over-allotment Option	Total With Over-allotment Option
Public offering price	\$	\$	\$
Underwriting discount (7%)	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

We have paid an expense deposit of \$25,000 to the representative, which will be applied against the out-of-pocket accountable expenses that will be paid by us to the underwriters in connection with this offering, and will be reimbursed to us to the extent not actually incurred in compliance with FINRA Rule 5110(g)(4)(A).

We have also agreed to pay certain of the underwriters' expenses relating to the offering, including (a) filing fees associated with the review of the offering by FINRA; (b) all fees and expenses relating to the listing of such public securities on the Nasdaq Capital Market, including any fees charged by The Depository Trust Company for new securities; (c) all fees, expenses and disbursements relating to the registration or qualification of the shares of our common stock under the "blue sky" securities laws of such states and other jurisdictions as the representative may reasonably designate; (d) all fees, expenses and disbursements relating to the registration, qualification or exemption of the shares of our common stock under the securities laws of such foreign jurisdictions as the representative may reasonably designate; (e) the costs associated with post-closing advertising the offering in the national editions of the Wall Street Journal and New York Times; (f) the fees and expenses of the Company's accountants, transfer agents and public relations firm; and (g) fees and expenses of the underwriters' legal counsel not to exceed \$125,000.

Our total estimated expenses of the offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding underwriting discounts and commissions, are approximately \$586,000.

Upon closing of this offering, we have agreed to issue to the representative as compensation warrants to purchase up to _____ shares of common stock (5% of the aggregate number of shares of common stock sold in this offering (excluding any shares issued pursuant to the over-allotment option) (the "representative's warrants"). The representative's warrants will be exercisable at a per share exercise price equal to \$ _____ (125% of the public offering price per share in this offering). The representative's warrants are exercisable at any time and from time to time, in whole or in part, during the four year period beginning one (1) year from the commencement of sales of the securities issued in this offering.

The representative's warrants have been deemed compensation by FINRA and are therefore subject to a one (1) year lock-up pursuant to applicable FINRA Rules. The representative (or permitted assignees under Rule 5110(c)(2)) will not sell, transfer, assign, pledge, or hypothecate these warrants or the securities underlying these warrants, nor will they engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the warrants or the underlying securities for a period beginning one (1) year from the commencement of sales of the securities issued in this offering. In addition, the warrants provide for registration rights upon request, in certain cases. The sole demand registration right provided will not be greater than five years from the commencement of sales of the securities issued in this offering in compliance with FINRA Rule 5110(g)(8)(C). The piggyback registration rights provided will not be greater than seven years from the commencement of sales of the securities issued in this offering in compliance with FINRA Rule 5110(g)(8)(D). We will bear all fees and expenses attendant to registering the securities issuable on exercise of the warrants other than underwriting commissions incurred and payable by the holders. The exercise price and number of shares issuable upon exercise of the warrants may be adjusted in certain circumstances including in

the event of a stock dividend or our recapitalization, reorganization, merger or consolidation. However, the warrant exercise price or underlying shares will not be adjusted for issuances of shares of common stock at a price below the warrant exercise price.

Lock-Up Agreements

Pursuant to “lock-up” agreements, we, our executive officers and directors, and certain stockholders, have agreed, without the prior written consent of the representative of the underwriters not to directly or indirectly, offer to sell, sell, pledge or otherwise transfer or dispose of any of shares of (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) our common stock, enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of our common stock, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for common stock or any other securities of ours or publicly disclose the intention to do any of the foregoing, subject to customary exceptions, for a period of six months after the date of this prospectus in the case of our directors and executive officers and for a period of three months after the date of this prospectus in the case of the Company and any successor of the Company and certain stockholders.

Discretionary Accounts

The underwriters do not intend to confirm sales of the shares of common stock offered hereby to any accounts over which they have discretionary authority.

Nasdaq Capital Market Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol “IKT.”

Determination of Offering Price

The public offering price of the shares of our common stock that we are offering was negotiated between us and the representative based on, among other things, the trading price of our common stock prior to the offering. Other factors considered in determining the public offering price of the shares of our common stock include our history and prospects, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Other Relationships

From time to time, certain of the underwriters and/or their respective affiliates may have provided, and may in the future provide, various investment banking and other financial services for us for which they may receive customary fees. In the course of its business, certain of the underwriters and their respective affiliates may actively trade our securities or loans for its own account or for the accounts of customers, and, accordingly, the underwriters and their respective affiliates may at any time hold long or short positions in such securities or loans.

ThinkEquity acted as representative of the underwriters for our underwritten, firm commitment initial public offering of our common stock (“IPO”) that closed on December 28, 2020. As representative of the underwriters in the IPO, ThinkEquity received the following compensation: an underwriting discount of 7%, a non-accountable expense allowance of 1% of the gross proceeds in the offering, reimbursement of certain expenses and warrants to purchase up to 90,000 shares of our common stock (5% of the aggregate number of shares of common stock sold in the IPO (exclusive of any over-allotment option)). ThinkEquity also received, from the

closing of the IPO until March 28, 2022, an irrevocable right of first refusal, in its sole discretion, to act as sole investment banker, sole book-runner, and/or sole placement agent, at the representative's sole discretion, for each and every future public and private equity and debt offering, including all equity linked financings, during such period, on terms customary to the representative.

Price Stabilization, Short Positions and Penalty Bids

In connection with this offering, the underwriter may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriter may over-allot in connection with this offering by selling more shares than are set forth on the cover page of this prospectus. This creates a short position in our common stock for its own account. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares of common stock over-allotted by the underwriters is not greater than the number of shares of common stock that they may purchase in the over-allotment option. In a naked short position, the number of shares of common stock involved is greater than the number of shares common stock in the over-allotment option. To close out a short position, the underwriters may elect to exercise all or part of the over-allotment option. The underwriters may also elect to stabilize the price of our common stock or reduce any short position by bidding for, and purchasing, common stock in the open market.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter or dealer repays selling concessions allowed to it for distributing shares of common stock in this offering because the underwriters repurchase the shares of common stock in stabilizing or short covering transactions.

Finally, the underwriters may bid for, and purchase, shares of our common stock in market making transactions, including "passive" market making transactions as described below.

These activities may stabilize or maintain the market price of our common stock at a price that is higher than the price that might otherwise exist in the absence of these activities. The underwriters are not required to engage in these activities, and may discontinue any of these activities at any time without notice. These transactions may be effected on the national securities exchange on which our shares of common stock are traded, in the over-the-counter market, or otherwise.

Indemnification

We have agreed to indemnify the underwriters against liabilities relating to this offering arising under the Securities Act and the Exchange Act, liabilities arising from breaches of some or all of the representations and warranties contained in the underwriting agreement, and to contribute to payments that the underwriter may be required to make for these liabilities.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by the underwriter, or by its affiliates. Other than this prospectus in electronic format, the information on the underwriters' website and any information contained in any other website maintained by an underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the underwriters in their capacity as underwriters, and should not be relied upon by investors.

Selling Restrictions

No action has been taken in any jurisdiction (except in the United States) that would permit a public offering of our common stock, or the possession, circulation or distribution of this prospectus or any other material relating to us or our common stock in any jurisdiction where action for that purpose is required.

Accordingly, our common stock may not be offered or sold, directly or indirectly, and this prospectus or any other offering material or advertisements in connection with our common stock may be distributed or published, in or from any country or jurisdiction, except in compliance with any applicable rules and regulations of any such country or jurisdiction.

European Economic Area and United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom (each a “Relevant State”), no common stock has been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the common stock 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:

- to legal entities which are qualified investors as defined under the Prospectus Regulation;
- by the underwriters to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation, provided that no such offer of common stock shall result in a requirement for us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer of common stock to the public” in relation to any common stock 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 common stock to be offered so as to enable an investor to decide to purchase or subscribe for our common stock, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

United Kingdom

This prospectus has only been communicated or caused to have been communicated and will only be communicated or caused to be communicated as an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act of 2000, or the FSMA) as received in connection with the issue or sale of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us. All applicable provisions of the FSMA will be complied with in respect to anything done in relation to our common stock in, from or otherwise involving the United Kingdom.

Canada

The shares of common stock 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 securities 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 of National Instrument 33-105 Underwriting Conflicts, or 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 issuance of our common stock offered in this prospectus will be passed upon for us by Troutman Pepper Hamilton Sanders LLP, New York, New York. Gracin & Marlow, LLP, New York, New York is acting as counsel for the underwriter.

EXPERTS

CohnReznick LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2020 and 2019, and for each of the two years in the period ended December 31, 2020, as set forth in their report, which includes an explanatory paragraph relating to our ability to continue as a going concern. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on CohnReznick LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL 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 offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC also maintains an Internet website that contains the registration statement of which this prospectus forms a part, as well as the exhibits thereto. These documents, along with future reports, proxy statements and other information about us, are available at the SEC's website, www.sec.gov.

We are subject to the information and reporting requirements of the Exchange Act, and, in accordance with this law, file periodic reports and other information with the SEC. These periodic reports and other information are available at the SEC's website, www.sec.gov. We also maintain a website at www.inhibikase.com. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

GLOSSARY

ACA	Affordable Care Act
AD	Alzheimer's disease
ADME	absorption, distribution, metabolism and elimination
AMP	average manufacturer price
ANDA	Abbreviated New Drug Application
ASC	Accounting Standards Codification
ASU	Accounting Standards Updates
AUC	area under the curve
BBB	bloodbrain barrier
BLA	Biologics License Application
c-Abl	Abelson protein kinase
CARES	Coronavirus Aid, Relief, and Economic Security Act
cGCPs	current Good Clinical Practices
cGMPs	current Good Manufacturing Practices
Cmax	measured maximum concentration
CML	chronic myelogenous leukemia
CMO	contract manufacturing organization
CMS	Centers for Medicare & Medicaid Services
CNS	central nervous system
CRO	contract research organization
CTA	Clinical Trial Application
DCCA	Defense Contract Audit Agency
DGCL	General Corporation Law of the State of Delaware
DLB	dementia with Lewy body
DOD	Department of Defense
EEA	European Economic Area
EMA	European Medicines Agency
FASB	Financial Accounting Standards Board
FATCA	Foreign Account Tax Compliance Act
FCPA	Foreign Corrupt Practices Act
FDA	U.S. Food and Drug Administration
FDASIA	Food and Drug Administration Safety and Innovation Act
FDCA	U.S. Food, Drug & Cosmetic Act
FINRA	Financial Industry Regulatory Authority
FSMA	Financial Services and Markets Act
GAAP	generally accepted accounting principles
GI	gastrointestinal
HIPAA	Health Insurance Portability and Accountability Act
HITECH	Health Information Technology for Economic and Clinical Health Act
IKT	Inhibikase Therapeutics, Inc.
IMM	irreversible morbidity or mortality
IND	Investigational New Drug Application
IPO	initial public offering
IRB	Institutional Review Board
JCV	John Cunningham Virus
JOBS	Jumpstart Our Business Startups Act
LBs	Lewy bodies

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MAA	Marketing Authorization Application
MCMs	medical countermeasures
MMA	Medicare Prescription Drug, Improvement, and Modernization Act
MSA	multiple system atrophy
NDA	New Drug Application
NOAEL	no observed adverse event level
PCAOB	Public Company Accounting Oversight Board
PD	Parkinson's disease
PML	progressive multifocal leukoencephalopathy
PPP	Payroll Protection Program
RAMP™	Re-engineering Approach with Metabolism Preserved
REMS	Risk Evaluation and Mitigation Strategy
RNPV	risk adjusted net present value
SBA	U.S. Small Business Administration
SEC	Securities and Exchange Commission
SHOP	Small Business Health Options Program
SOX	Sarbanes Oxley Act
TCJA	Tax Cuts and Jobs Act
UPDRS	Universal Parkinson's Disease Rating Scale
USPTO	U.S. Patent and Trademark Office
USRPHC	U.S. real property holding corporation
USRPI	U.S. real property interest

INHIBIKASE THERAPEUTICS, INC.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Inhibikase Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Inhibikase Therapeutics, Inc. (the “Company”) as of December 31, 2020 and 2019, and the related statements of operations, stockholders’ equity (deficit), and cash flows for the years then ended, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Substantial Doubt about the Company’s Ability to Continue as a Going Concern

The accompanying financial statements have been prepared assuming that Inhibikase Therapeutics, Inc. will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and has an accumulated deficit that raise substantial doubt about its 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 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 these 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. 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

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/ CohnReznick LLP

We have served as the Company’s auditor since 2018.
Holmdel, New Jersey
March 31, 2021

**Inhibikase Therapeutics, Inc.
Balance Sheets**

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash	\$ 13,953,513	\$ 18,457
Prepaid research and development	774,356	—
Prepaid expenses and other current assets	54,837	16,924
Total	14,782,706	35,381
Deferred initial public offering costs	—	2,873
Total assets	<u>\$ 14,782,706</u>	<u>\$ 38,254</u>
Liabilities and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	\$ 1,720,680	\$ 1,001,699
Accrued expenses and other current liabilities	632,934	1,724,141
Deferred revenue	2,325,741	1,428,636
Notes payable	42,534	98,419
Total	4,721,889	4,252,895
Notes payable, net of current portion	276,461	275,375
Total liabilities	<u>4,998,350</u>	<u>4,528,270</u>
Commitments and contingencies (see Note 10)		
Stockholders' equity (deficit):		
Preferred stock, \$0.001 par value; 10,000,000 and 0 shares authorized at December 31, 2020 and 2019; 0 shares issued and outstanding at December 31, 2020 and 2019	—	—
Common stock, \$0.001 par value; 100,000,000 and 30,000,000 shares authorized; 10,050,849 and 8,180,937 shares issued and outstanding at December 31, 2020 and 2019	10,051	8,181
Additional paid-in capital	24,805,929	7,685,533
Accumulated deficit	<u>(15,031,624)</u>	<u>(12,183,730)</u>
Total	9,784,356	(4,490,016)
Total liabilities and stockholders' equity (deficit)	<u>\$ 14,782,706</u>	<u>\$ 38,254</u>

See accompanying notes to financial statements.

Inhibikase Therapeutics, Inc.
Statements of Operations

	Year ended December 31,	
	2020	2019
Revenue:		
Grant revenue	\$ 698,468	\$ 1,122,740
Total revenue	<u>698,468</u>	<u>1,122,740</u>
Costs and expenses:		
Research and development	893,802	2,552,711
Selling, general and administrative	<u>2,623,158</u>	<u>4,268,177</u>
Total costs and expenses	<u>3,516,960</u>	<u>6,820,888</u>
Loss from operations	(2,818,492)	(5,698,148)
Interest expense	<u>(29,402)</u>	<u>(24,835)</u>
Net loss	<u>\$ (2,847,894)</u>	<u>\$ (5,722,983)</u>
Net loss per share - basic and diluted	<u>\$ (0.35)</u>	<u>\$ (0.70)</u>
Weighted-average number of common shares - basic and diluted	<u>8,212,581</u>	<u>8,180,937</u>

See accompanying notes to financial statements.

Inhibikase Therapeutics, Inc.
Statements of Stockholders' Equity (Deficit)

	<u>Common Stock</u>		<u>Additional Paid-In Capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Equity (Deficit)</u>
	<u>Shares</u>	<u>Amount</u>			
Balance at December 31, 2018	8,180,937	\$ 8,181	\$ 5,674,601	\$ (6,460,747)	\$ (777,965)
Stock-based compensation expense	—	—	1,436,608	—	1,436,608
Issuance of warrants	—	—	574,324	—	574,324
Net loss	—	—	—	(5,722,983)	(5,722,983)
Balance at December 31, 2019	8,180,937	8,181	7,685,533	(12,183,730)	(4,490,016)
Stock-based compensation expense	—	—	573,695	—	573,695
Issuance of warrants	—	—	1,443,426	—	1,443,426
Issuance of common stock	14,175	15	4,855	—	4,870
Conversion of notes	55,737	55	505,175	—	505,230
Issuance of initial public offering common stock	1,800,000	1,800	14,593,245	—	14,595,045
Net loss	—	—	—	(2,847,894)	(2,847,894)
Balance at December 31, 2020	<u>10,050,849</u>	<u>\$ 10,051</u>	<u>\$ 24,805,929</u>	<u>\$ (15,031,624)</u>	<u>\$ 9,784,356</u>

See accompanying notes to financial statements.

Inhibikase Therapeutics, Inc.
Statements of Cash Flows

	Year ended December 31,	
	2020	2019
Operating activities		
Net loss	\$ (2,847,894)	\$ (5,722,983)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	573,695	1,436,608
Non-cash consulting fees	148,795	150,000
Non-cash interest	17,260	—
Deferred initial public offering costs	—	1,591,989
Warrant expense	1,443,426	574,324
Changes in operating assets and liabilities:		
Accounts receivable	—	472,941
Prepaid expenses and other assets	(37,913)	382,162
Accounts payable	(247,071)	47,461
Accrued expenses and other current liabilities	(1,076,758)	(437,060)
Deferred revenue	897,105	1,166,268
Net cash used in operating activities	<u>(1,129,355)</u>	<u>(338,290)</u>
Financing activities		
Proceeds from notes payable	272,800	—
Proceeds from issuance of common stock	4,870	—
Proceeds from issuance of common stock upon initial public offering, net of issuance costs	14,786,741	—
Repayments of note payable	—	(22,810)
Net cash provided by (used in) financing activities	<u>15,064,411</u>	<u>(22,810)</u>
Net increase (decrease) in cash	13,935,056	(361,100)
Cash at beginning of year	18,457	379,557
Cash at end of year	<u>\$ 13,953,513</u>	<u>\$ 18,457</u>
Supplemental disclosures of cash flow information		
Cash paid for interest	<u>\$ 6,249</u>	<u>\$ 9,152</u>
Non-cash financing activities		
Notes payable settled with common stock	<u>\$ 505,230</u>	<u>\$ —</u>
Notes payable settled with new notes payable	<u>\$ 42,534</u>	<u>\$ 360,919</u>
Accrued deferred initial public offering costs	<u>\$ —</u>	<u>\$ 2,873</u>

See accompanying notes to financial statements.

**Inhibikase Therapeutics, Inc.
Notes to Financial Statements**

1. Nature of Business

Inhibikase Therapeutics, Inc. (the “Company”), incorporated on June 3, 2010 as a Delaware corporation with its headquarters in Atlanta, Georgia, is developing therapeutics for neurodegenerative disease inside and outside of the brain. The Company filed two Investigational New Drug Applications, or INDs, for its lead programs in neurodegenerative disease with the U.S. Food and Drug Administration, or FDA, in the first quarter of 2019.

The Company’s registration statement on Form S-1 filed during 2020 in connection with its initial public offering (“IPO”) was declared effective on December 22, 2020 by the Securities and Exchange Commission (the “SEC”), and the Company’s common stock began trading on the Nasdaq Capital Market on December 23, 2020. On December 28, 2020, the Company completed its IPO, in which the Company sold and issued 1,800,000 shares of its common stock at a price to the public of \$10.00 per share. The Company received aggregate net proceeds of approximately \$14.6 million after deducting offering costs, underwriting discounts and commissions of \$3.4 million.

The Company utilizes small molecule, oral protein kinase inhibitors to treat Parkinson’s Disease, or PD, and its GI complications. The Company has shown in animal models of progressive PD that its lead clinical candidate, IKT-148009, is a brain penetrant Abelson tyrosine kinase, or c-Abl, inhibitor that halts disease progression and reverses functional loss in the brain and reverses neurological dysfunction in the GI tract. The ability to halt progression and restore function was shown in animal models of progressive disease that mimic the rate of disease progression and the extent of functional loss in the brain and/or the GI tract as found in patients with PD.

Historically, the multi-decade failures in the treatment of neurodegenerative diseases such as PD result from a lack of understanding of the biochemistry of the disease processes involved. Neurodegeneration is marked by a progressive degeneration and loss of function of neurons which send and receive signals from the brain. Historically, the cause of a neurodegenerative disease was thought to be a “plaque” made up of a misfolded and/or aggregated protein(s). The Company has taken a different approach, by identifying the proteins that become dysfunctional in a disease pathway and seeking to understand how a dysfunctional protein causes disease. Using this strategy, the Company believes it has discovered at least one enzyme, c-Abl, that plays a pivotal role in the disease process for PD, c-Abl. The Company has developed a novel protein kinase inhibitor against c-Abl, which it believes can alter the disease course for PD.

In addition to programs in PD, the Company’s platform drug discovery and delivery technologies identified additional opportunities, including a potential treatment for bacterial or viral infections in the brain using a single agent at fixed dose, and an oncology opportunity in stable-phase Chronic Myelogenous Leukemia, or CML. The Company’s product for CML, IKT-001Pro, is a prodrug of the anticancer agent Imatinib. A prodrug is a compound that, after administration, is metabolized by the body into a pharmacologically active drug. Imatinib is an FDA designated Orphan Drug and is the standard-of-care treatment for stable-phase CML. The Company plans to submit an IND to initiate clinical development for IKT-001Pro in the third quarter of 2021. Subject to future FDA agreements related to the clinical protocol design and execution of the clinical development program and additional funding, the Company believes that clinical development of IKT-001Pro could possibly be completed in 2022. The Company intends to submit a new drug application, or NDA, for IKT-001Pro pursuant to Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which specifies the requirements for approval. Pursuit of this oncology opportunity will seek to validate the pharmacology advantage of the Company’s prodrug technology in a well understood patient population with an approved drug substance. If the Company succeeds in validating the advantage of IKT-001Pro in oncology, it will subsequently evaluate whether the pharmacology advantages of the prodrug could be applied to novel drug substances, such as IKT-148009.

Liquidity and Going Concern

The Company has recognized recurring losses. At December 31, 2020, the Company had working capital of \$10,060,817, an accumulated deficit of \$15,031,624, cash of \$13,953,513 and accounts payable and accrued expenses of \$2,353,614. The Company had active grants in the amount of \$1,546,730, of which \$772,420 remained available in accounts held by the U.S. Treasury as of February 28, 2021.

The future success of the Company is dependent on its ability to successfully obtain additional working capital, obtain regulatory approval for and successfully launch and commercialize its product candidates and to ultimately attain profitable operations. Historically, the Company has funded its operations primarily through cash received in connection with revenue from its various grant programs. In addition, during December 2020, the Company raised approximately \$14.6 million in working capital from its IPO.

The Company is subject to a variety of risks similar to other early stage life science companies including, but not limited to, the successful development, regulatory approval, and market acceptance of the Company's product candidates, development by its competitors of new technological innovations, protection of proprietary technology, and raising additional working capital. The Company has incurred significant research and development expenses and general and administrative expenses related to its product candidate programs. The Company anticipates costs and expenses to increase in the future as the Company continues to develop its product candidates.

The Company may seek to fund its operations through additional public equity, private equity, or debt financings, as well as other sources. However, the Company may be unable to raise additional working capital, or if it is able to raise additional capital, it may be unable to do so on commercially favorable terms. The Company's failure to raise capital or enter into such other arrangements if and when needed, would have a negative impact on the Company's business, results of operations and financial condition and the Company's ability to continue to develop its product candidates.

As certain elements of the Company's operating plan are outside of the Company's control, including the receipt of anticipated grants and funding from a future capital raise, they cannot be considered probable. If the Company does not receive additional capital from future anticipated grants and future anticipated capital raises, its business plan will be scaled down to preclinical activities and its Phase I PD trial in humans will be delayed.

These conditions raise substantial doubt regarding the Company's ability to continue as a going concern for a period of one year after the date the financial statements are issued. Management's plan to alleviate the conditions that raise substantial doubt include additional equity raises, suspending or delaying certain research projects and capital expenditures and eliminating certain future operating expenses in order to fund operations at reduced levels for the Company to continue as a going concern.

The accompanying 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 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 the uncertainties described above.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company's financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

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On August 21, 2020, the Company filed a Certificate of Amendment of its Certificate of Incorporation with the Secretary of State of the State of Delaware that effected a one-for-1.14396 (1:1.14396) reverse stock split of its common stock, par value \$.001 per share, effective August 24, 2020. All warrant, option, share, and per share information in the Company's financial statements gives retroactive effect to the one-for-1.14396 reverse stock split that was effected on August 24, 2020.

Use of Estimates

The preparation of the Company's financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company utilizes certain estimates in the determination of the fair value of its stock options and warrants, deferred tax valuation allowances and revenue recognition, to record expenses relating to research and development contracts and accrued expenses. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results could differ from such estimates.

Off-Balance Sheet Risk and Concentrations of Credit Risk

The Company has no significant off-balance sheet risks, such as foreign exchange contracts, option contracts, or other foreign hedging arrangements. Financial instruments that subject the Company to credit risk primarily consist of cash and cash equivalents. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company is exposed to credit risk in the event of a default by the financial institutions holding its cash to the extent recorded on the balance sheets.

The Company has not experienced any losses in such accounts and management believes that the Company does not have significant credit risk with respect to such cash and cash equivalents.

For the years ended December 31, 2020 and 2019, the Company derived more than 90% of its total revenue from a single source, the United States Government, in the form of federal research grants.

Fair Value Measurements

For certain financial instruments, including cash and accounts payable, the carrying amounts approximate their fair values as of December 31, 2020 and 2019 because of their short-term nature.

Revenue Recognition

The Company generates revenue from research and development grants under contracts with third parties that do not create customer-vendor relationships. The Company's research and development grants are non-exchange transactions and are not within the scope of ASC Topic 606, Revenue from Contracts with Customers ("ASC 606"). Contribution revenue earned from activities performed pursuant to research and development grants is reported as grant revenue in the Company's statements of operations. Revenues from these grants are recognized as the Company incurs qualifying expenses as stipulated by the terms of the respective grant. Cash received from grants in advance of incurring qualifying expenses is recorded as deferred revenue. The Company records revenue and a corresponding receivable when qualifying costs are incurred before the grants are received.

Research and Development Costs

Costs incurred in the research and development of the Company's product candidates are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including activities associated with performing services under grant revenue contracts and include salaries and benefits, stock compensation, research-related subcontractors and consultants, supplies and overhead costs.

Advance payments made to suppliers and contract research organizations are classified as prepaid research and development and are expensed as research and development as the supplies are consumed and the contract services are provided.

Stock-Based Compensation

The Company has a stock-based compensation plan which is more fully described in Note 6. The Company records stock-based compensation for options granted to employees and to members of the board of directors for their services on the board of directors, based on the grant date fair value of awards issued, and the expense is recorded on a straight-line basis over the applicable service period, which is generally one to two years. The Company accounts for non-employee stock-based compensation arrangements based upon the fair value of the consideration received or the equity instruments issued, whichever is more reliably measurable. Stock-based compensation costs for non-employee awards are recognized as services are provided, which is generally the vesting period.

The Company uses the Black-Scholes-Merton option-pricing model to determine the fair value of stock options. The use of the Black-Scholes-Merton option-pricing model requires management to make assumptions with respect to the expected term of the option, the expected volatility of the common stock consistent with the expected life of the option, risk-free interest rates and expected dividend yields of the common stock. The Company has concluded that the historical share option exercise experience does not provide a reasonable basis upon which to estimate expected term. Therefore, the expected term was determined according to the simplified method, which is the average of the vesting tranche dates and the contractual term. Due to the lack of company specific historical and implied volatility data, we have based our estimate of expected volatility primarily on the historical volatility of a group of similar companies that are publicly traded. For these analyses, companies with comparable characteristics are selected, including enterprise value and position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. The Company computes the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of its stock-based awards. The risk-free interest rate is determined by reference to U.S. Treasury zero-coupon issues with remaining maturities similar to the expected term of the options. The Company has not paid, and does not anticipate paying, cash dividends on shares of common stock.

Income Taxes

The Company provides for income taxes using the asset and liability method. The Company provides deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the Company's financial statement carrying amounts and the tax bases of assets and liabilities using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. A valuation allowance is provided to reduce the deferred tax assets to the amount that will more likely than not be realized.

The Company does not have any material uncertain tax positions for which reserves would be required. The Company will recognize interest and penalties related to uncertain tax positions, if any, in income tax expense.

Net Loss Per Share

Basic net loss per share is calculated by dividing net loss applicable to common stockholders by the weighted-average number of shares outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is calculated by adjusting the weighted-average number of shares outstanding for the dilutive effect of common stock equivalents outstanding for the period, determined using the treasury-stock method. For purposes of the diluted net loss per share calculation, warrants to purchase common stock and stock options 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, basic and diluted net loss per share applicable to common stockholders were the same for all periods presented.

Recent Accounting Standards

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and are generally 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.

The Company qualifies as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. The JOBS Act permits an emerging growth company such as the Company 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. The Company has elected not to “opt out” of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until such time that it either (i) irrevocably elects to “opt out” of such extended transition period or (ii) no longer qualifies as an emerging growth company.

Accounting Standards Adopted

On January 1, 2020, the Company adopted ASUNo. 2018-07, Compensation—Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting (“ASU 2018-07”), which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employees. An entity should apply the requirements of Topic 718 to non-employee awards except for specific guidance on inputs to an option pricing model and the attribution of cost (that is, the period of time over which share-based payment awards vest and the pattern of cost recognition over that period). The adoption of this ASU did not have a material impact on the Company’s financial statements.

Accounting Standards Issued, Not Yet Adopted

In February 2016, the FASB issued ASUNo. 2016-02, Leases (“ASU 2016-02”), which applies to all leases. Under ASU 2016-02, a right-of-use asset and lease obligation will be recorded for all leases, whether operating or financing leases, while the statement of operations will reflect lease expense for operating leases and amortization and interest expense for financing leases. ASU 2016-02 is effective for public entities for fiscal years beginning after December 15, 2018 and interim periods within those years, and after December 15, 2021 and interim periods beginning after December 15, 2021 for all other entities. Early adoption is permitted. Entities are required to use a modified retrospective approach of adoption for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Full retrospective application is prohibited. The Company’s adoption of the new standard is not expected to have a material impact on its financial statements.

In December 2019, the FASB issued ASU 2019-12 amending accounting guidance that simplifies the accounting for income taxes, as part of its initiative to reduce complexity in the accounting standards. It removes certain exceptions to the general principles in Topic 740 and amends existing guidance to improve consistent application. ASU 2019-12 will be effective for us in the first quarter of 2021 with early adoption permitted. The Company’s adoption of the new standard is not expected to have a significant impact on its financial statements.

In August 2020, the FASB issued ASUNo. 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40) (“ASU 2020-06”). ASU 2020-06 simplifies the accounting for convertible debt instruments by reducing the number of accounting models and the number of embedded features that could be recognized separately from the host contract. Consequently, more convertible debt instruments will be accounted for as a single liability measured at its amortized cost, as long as no other features require bifurcation and recognition as derivatives. ASU 2020-06 also

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requires use of the if-converted method in the diluted earnings per share calculation for convertible instruments. ASU2020-06 is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years for smaller reporting companies, with early adoption permitted. The Company is currently evaluating the potential impact that this standard may have on its consolidated financial statements and related disclosures.

3. Supplemental Balance Sheet Information

Accrued expenses and other current liabilities consist of the following:

	December 31, 2020	December 31, 2019
Accrued consulting	\$ 115,405	\$ 65,017
Accrued legal and professional fees	383,286	1,434,874
Accrued research and development	83,491	180,716
Accrued interest	1,673	5,123
Accrued other	49,079	38,411
Total accrued expenses and other current liabilities	<u>\$ 632,934</u>	<u>\$ 1,724,141</u>

4. Notes Payable

Notes payable outstanding were \$318,995 and \$373,794 at December 31, 2020 and 2019, respectively.

	12/31/2020	12/31/2019
2019 Note	\$ —	\$ 98,419
Fifth Restated Note	42,534	—
2019 CFO Note	—	275,375
PPP Note	27,550	—
CEO Restated Note	248,911	—
Total notes payable	<u>\$ 318,995</u>	<u>\$ 373,794</u>

Future principal payments on the notes payable as of December 31, 2020 are as follows:

Year ended December 31,	
2021	\$ 42,534
2022	276,461
2023	—
2024	—
2025	—
Total notes payable	<u>\$ 318,995</u>

Revolving Demand Promissory Note

On January 1, 2019, the Company issued a note (the “2019 Note”) in the face amount of \$98,419 bearing 5.25% APR simple interest as payment for the balance due on a 2018 note that matured on January 1, 2019. The 2019 Note matured and was settled on January 1, 2020 (see below). The Company assessed the terms and features of the 2019 Note in order to identify any potential embedded features that would require bifurcation. The Company concluded that these features are not clearly and closely related to the host instrument, and represent derivative instruments required to be re-measured at fair value at each reporting date. During 2019, the value of the derivative instruments was not material.

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On January 1, 2020, the Company issued a note (the “2020 Note”) in the face amount of \$103,586 bearing 5.25% APR simple interest as settlement in full on the 2019 Note that matured on January 1, 2020. The 2020 Note matures on January 1, 2021. Upon occurrence of certain conditions including the sale of a division of the Company or upon the date on which the Company closes on certain financings, the due date for some or all of the unpaid principal and accrued and unpaid interest may be accelerated. The Company assessed the terms and features of the 2020 Note and determined that none of the terms and features represented embedded derivatives that require bifurcation.

On June 30, 2020, the holder of the 2020 Note and the Company entered into an agreement to settle the 2020 Note early. As full consideration and settlement of the 2020 Note’s June 30 principal balance plus accrued and unpaid interest in the amount of \$106,334, the Company issued a new promissory note to the holder in the amount of \$42,534 (the “Fifth Restated Note”) with substantially similar terms as the 2020 Note and it matures on the earlier of a significant transaction, including an initial public offering, sale of substantially all assets or change of control, and January 1, 2021. In addition, the holder subscribed for the purchase of 11,594 unregistered shares of the Company’s common stock at a subscription price of \$63,800, or \$5.50 per share. The issuance of shares under the subscription agreement and the issuance of the Fifth Restated Note satisfied the payoff of the 2020 Note without premium or discount. The Company consummated its IPO on December 28, 2020 and the principal balance of the Fifth Restated Note plus accrued and unpaid interest was settled in full in cash on January 1, 2021.

Note Payable to CEO

On February 5, 2020 (the “Issue Date”), the Company issued a note payable to its CEO (the “CEO Note”) in the face amount of \$245,250 bearing 1.59% APR simple interest in exchange for cash. The net proceeds of \$245,250 were used as working capital by the Company. The note carried an original maturity of the earlier of the sixth month following the Issue Date or the date the Company has sufficient funds to repay the CEO Note. If an event of default occurs and is continuing the Company agrees to issue a warrant to the holder with a strike price of \$4.87 per share for a number of shares equal to 150% of the value of the loan. The Company assessed the terms and features of the CEO Note and determined that none of the terms and features represented embedded derivatives that require bifurcation.

On June 13, 2020, the holder of the CEO Note and the Company entered into a restated agreement (the “CEO Restated Note”). The CEO Restated Note in the amount of \$248,911 extends the stated maturity date of the CEO Note from the earlier of the sixth month following the (original) Issue Date or the date the Company has sufficient funds to repay the note to the earlier of the 30th month following the (original) Issue Date or the date the Company has sufficient funds to repay the CEO Restated Note. The Issue Date, February 5, 2020, is unchanged. In addition, the interest rate was reduced, effective as of the Issue Date, from 1.59% APR to 0.25%. The CEO Restated Note also changed the exercise price of the warrant from \$4.87 to \$4.81 per share in the case of any default. The other provisions of the CEO Restated Note are the same, in all material respects, to the CEO Note. The Company and its CEO have agreed that the CEO Restated Note will not be repaid for a minimum of 12 months following the closing of its initial public offering. The principal balance of the CEO note was \$248,911 at December 31, 2020.

The Payroll Protection Program Loan (the “PPP Loan”)

On May 4, 2020, the Company received \$27,550 in loan proceeds as part of the Federal CARES Act Paycheck Protection Program (the “PPP Act” or “PPP”) with a 1% annual interest rate. Some or all of this loan may be forgiven if the Company expends not less than 60% of the loan proceeds on qualified payroll costs. The Company believes it has met the contractual conditions for forgiveness of the entire PPP loan and expects the PPP loan will be forgiven during 2021, although there can be no assurance of forgiveness until the lender makes its independent determination. The \$27,550 principal balance is included on the balance sheet included in Notes payable, net of current portion at December 31, 2020

Note Payable to CFO

In December 2019, the Company issued a revolving demand promissory note (the “2019 CFO Note”) to its CFO (the owner of Flagship Consulting, Inc. “Flagship”) in the amount of \$275,375 plus up to \$300,000 for future CFO services to be rendered to the Company. The 2019 CFO Note replaced a note issued in 2018 (the “2018 Flagship Note”) which matured on December 31, 2019. The \$275,375 due to its CFO in December 2019 included the amounts due on the 2018 Flagship Note, plus accrued and unpaid interest, plus the additional amounts due under the 2018 Flagship Agreement (which agreement provided for CFO services to be rendered to the Company). The 2019 CFO Note plus accrued and unpaid interest at 5% APR matures on the earlier of a significant transaction, including an initial public offering, sale of substantially all assets or change of control, or December 31, 2021. The Company assessed the terms and features of the 2019 CFO Note, including the contingent acceleration of obligations under an event of default and the contingent prepayment features in order to identify any potential embedded features that would require bifurcation. The Company concluded that these features are not clearly and closely related to the host instrument, and represent derivative instruments required to be re-measured at fair value on each reporting date. At December 31, 2019, the Company determined that the value of these features was not material and, therefore, was not recorded as a separate item on the balance sheet.

The principal plus accrued and unpaid interest on the 2019 CFO Note was \$386,013 when it was settled early on August 31, 2020. On August 31, 2020, the Company issued an amended and restated second convertible demand promissory note to Flagship (the “2020 Flagship Note”) in the face amount of \$386,013 as full consideration of the 2019 CFO Note plus an additional sum of up to \$300,000 as is accrued for unpaid fees for services rendered after December 31, 2019. The 2020 Flagship Note matures on the earlier of a significant transaction, including an initial public offering, sale of substantially all assets or change of control, or December 31, 2021, and bears an annual simple interest rate of 5%.

The 2020 Flagship Note includes an automatic conversion provision which provided that if, on or before October 31, 2020, the Company consummated an initial public offering, the then unpaid principal plus accrued interest of the 2020 Flagship Note would automatically be converted into shares of the Company’s common stock. The conversion price per share would be the IPO price.

The 2020 Flagship Note was amended on October 30, 2020 to extend the automatic conversion provision to provide that if on or before December 31, 2020, the Company consummates an initial public offering, the then unpaid principal plus accrued interest of the 2020 Flagship Note shall automatically convert into shares of the Company’s common stock. The conversion price per share shall be the initial public offering price.

Upon the December 28, 2020 consummation of the Company’s IPO, the principal balance plus accrued and unpaid interest on the 2020 Flagship Note, totaling \$441,432, was converted into 44,143 shares of common stock at the IPO price of \$10.00 per share.

5. Stockholders’ Deficit

Each share of common stock is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of holders of all classes of stock outstanding. As of December 31, 2020, a total 4,318,357 shares of common stock were reserved for issuance upon the exercise of outstanding stock options and warrants under the 2011 Equity Incentive Plan.

Reverse Stock Split

On August 20, 2020, the board of directors adopted resolutions proposing that each 1.14396 shares of the Company’s issued and outstanding common stock, par value \$0.001 per share, be automatically converted into one fully paid and nonassessable share of common stock, par value \$0.001 (the “Reverse Stock Split”) with cash

in lieu of fractional shares. On August 21, 2020, shareholders representing a majority of the issued and outstanding common stock approved the Reverse Stock Split. On August 21, 2020, the Company filed with the Delaware Secretary of State its Certificate of Amendment to its Certificate of Incorporation, effective as of August 24, 2020.

Share Issuances

In January 2020, an accredited investor subscribed for, and the Company issued, 874 shares of its stock in a private placement transaction at a per share price of \$5.57. Net proceeds were approximately \$4,870. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.

On June 30, 2020, the Company accepted a fully paid-up subscription for 11,594 shares of its stock from a note holder who is an accredited investor in a private placement transaction at a per share price of \$5.50. Total consideration of approximately \$63,800 for the subscription was recognized by the Company as cashless consideration for partial settlement of the 2020 Note (refer to Note 4 for information regarding early settlement of the 2020 Note). Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.

On August 25, 2020, the Company issued 13,301 fully paid non-assessable shares of its common stock in connection with a net settled cashless exercise of 21,854 warrant shares with a strike price of \$2.31 per share. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.

On December 28, 2020, the Company issued 44,143 fully paid non-assessable shares of its common stock in connection with the cashless conversion of principal and accrued and unpaid interest in the amount of \$441,432 on the 2020 Flagship Note. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.

On December 28, 2020, the Company issued 1,800,000 fully paid non-assessable shares of its common stock in connection with its IPO. Proceeds from the issuance were approximately \$14.6 million after deducting offering costs, underwriting discounts and commissions of approximately \$3.4 million. The net proceeds will be used as working capital by the Company.

6. Stock-Based Compensation

2020 Equity Incentive Plan

On July 21, 2020, the Company's board of directors and its stockholders approved the 2020 Equity Incentive Plan (the "2020 Plan"). The 2020 Plan became effective immediately prior to the closing of the Company's December 2020 IPO. The 2020 Plan provides for the granting of incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock or restricted stock units to any of its employees, directors, consultants and other service providers or those of its affiliates. The board of directors has initially designated the compensation committee to administer the 2020 Plan. The compensation committee has broad authority to administer the plan and to determine the vesting conditions for awards. Neither the compensation committee nor the board of directors are authorized to reprice outstanding options or stock appreciation rights without shareholder consent. In addition, any amendments to increase the total number of shares reserved for issuance under the 2020 Plan or modification of the classes of participants eligible to awards requires ratification by the stockholders. Subject to certain adjustments, the maximum number of shares of common stock that may be issued under the 2020 Plan in connection with awards is limited to 8,650,000 shares.

Following the effectiveness of the 2020 Plan, the Company ceased making grants under the 2011 Equity Incentive Plan (the "2011 Plan"). However, the 2011 Plan continues to govern the terms and conditions of the

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outstanding awards granted under the 2011 Plan. Shares of common stock subject to awards granted under the 2011 Plan that cease to be subject to such awards by forfeiture or otherwise after the effective date of the 2020 Plan will become available for issuance under the 2020 Plan.

2011 Equity Incentive

Prior to the closing of its IPO, the Company maintained the 2011 Plan, pursuant to which the Company made grants of non-qualified stock options to eligible employees and other service providers.

Stock Options

During the years ended December 31, 2020 and 2019, the Company granted options with an aggregate fair value of \$1,466,644 and \$1,650,487, respectively, which are being amortized to expense over the vesting period of the options as the services are being provided.

The following is a summary of option activity under the 2011 Plan and the 2020 Plan:

	Number of Shares	Weighted- Average Exercise Price Per Share	Weighted- Average Remaining Contractual Term (In Years)
Outstanding at December 31, 2018	2,822,796	\$ 1.01	8.19
Granted	546,348	5.57	5.65
Exercised	—	—	—
Forfeited	—	—	—
Cancelled	—	—	—
Outstanding at December 31, 2019	3,369,144	1.75	7.78
Granted	227,300	10.00	6.98
Exercised	—	—	—
Forfeited	—	—	—
Cancelled	—	—	—
Outstanding at December 31, 2020	<u>3,596,444</u>	<u>2.27</u>	<u>7.73</u>
Exercisable at December 31, 2020	<u>3,274,444</u>	<u>1.68</u>	<u>7.84</u>
Vested or expected to vest at December 31, 2020	<u>3,596,444</u>	<u>2.27</u>	<u>7.73</u>

As of December 31, 2020, the intrinsic value of options outstanding at December 31, 2020 was \$17.6 million and the intrinsic value of options exercisable at December 31, 2020 was \$17.4 million. Intrinsic value is calculated based on the aggregate difference between the closing price of the Company's common stock on the last trading day of 2020 and the exercise price of each in the money stock option award.

There were no options to purchase stock that vest upon the achievement of performance conditions at December 31, 2020.

The weighted-average fair values of options granted in the years ended December 31, 2020 and 2019 were \$6.45 and \$3.02, per share, respectively, and were calculated using the following estimated assumptions:

	Year ended December 31,	
	2020	2019
Weighted-average risk-free interest rate	0.32%	1.79%
Expected dividend yield	0.00%	0.00%
Expected volatility	87.63%	71.84%
Expected terms	4.44 years	4.14 years

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The total fair values of stock options that vested during the years ended December 31, 2020 and 2019 were \$573,695 and \$1,436,608, respectively.

As of December 31, 2020, there was \$1,709,426 of total unrecognized compensation cost related to non-vested stock options granted under the 2011 Plan and the 2020 Plan. The Company expects to recognize that cost over a remaining weighted-average period of 1.72 years as of December 31, 2020.

Restricted Stock Units

During the years ended December 31, 2020 and 2019, there were no restricted stock units issued or outstanding.

Stock-Based Compensation Expense

The following table summarizes the stock-based compensation expense for stock options granted to employees and non-employees:

	Year ended December 31,	
	2020	2019
Research and development	\$ 261,492	\$ 268,751
Selling, general and administrative	312,203	1,167,857
Total stock-based compensation expense	<u>\$ 573,695</u>	<u>\$ 1,436,608</u>

7. Warrants

On January 1, 2019, the Company issued a seven-year warrant to a service provider to purchase 20,533 shares of the Company's common stock with an exercise price of \$4.79 per share. The warrants vested immediately. The Company received legal services, as needed, during 2019 under an unwritten agreement with the service provider. The warrants are classified within stockholders' equity at their fair value and were treated as a standalone instrument. The fair value of the warrant was determined to be \$82,141 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and is recorded in selling, general and administrative expenses for the year ended December 31, 2019.

On March 31, 2020, the Company issued a warrant to purchase up to 26,225 shares of its stock to one of its consultants in exchange for legal services, as needed, during 2020. The warrant contains a strike price of \$5.67 per share and has a seven-year contractual term. The warrant is classified within stockholders' deficit at its fair value and was treated as a standalone instrument. The grant date fair value of the warrant was determined to be \$101,478 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and is all included in selling, general and administrative expenses for the year ended December 31, 2020.

From February to June 2019, the Company issued a series of seven-year warrants to purchase a total of 31,470 shares of the Company's common stock to the six members of its scientific advisory board ("SAB") in consideration of their service as SAB members. Each member received a warrant to purchase 5,245 shares under the same form of warrant. The exercise price is \$5.57 per share and the warrants vested immediately upon issuance. The warrants are classified within stockholders' equity at their fair value and were treated as a standalone instrument. The fair value of the 31,470 warrants was determined to be \$114,631 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance. These warrants contained a provision that they would expire on the earlier of seven years from the issuance date or the date of consummation of the sale of the Company's stock under an SEC registration statement. The warrants expired early upon consummation of the December 2020 initial public offering.

On August 25, 2020, the Company granted a fully vested warrant to purchase up to 21,854 shares of its common stock to Flagship Consulting, Inc. in connection with consulting services provided to the Company. The warrant

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is exercisable at a strike price of \$5.90 per share and has a contractual term of seven years. The warrant is classified within stockholders' equity at its fair value as a standalone instrument. The grant date fair value of the warrant was determined to be \$87,597 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and is included in selling, general and administrative expenses for the year ended December 31, 2020.

On August 25, 2020, the Company granted a warrant to purchase up to 150,000 shares of its common stock to Flagship Consulting, Inc. in connection with consulting services to be provided to the Company. The warrant is exercisable at a strike price of \$5.90 per share and has a contractual term of seven years. The warrant vests in full and becomes exercisable on the first anniversary of the grant date. The warrant is classified within stockholders' equity at its fair value as a standalone instrument over the vesting period. The aggregate grant date fair value of the warrant was determined to be \$601,245 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and will be included in selling, general and administrative expenses as services are rendered during its 12-month vesting period. Through December 31, 2020, \$210,848 is included in selling, general and administrative expense.

On August 25, 2020, a warrant holder exercised a warrant for 21,854 shares in a net settlement transaction. The Company issued 13,301 fully paid non-assessable shares of its common stock in connection with this net settled warrant exercise.

No warrants were exercised for the year ended December 30, 2019.

On December 28, 2020, the Company issued a seven-year warrant to purchase up to a total of 102,435 shares of the Company's common stock with an exercise price of \$10.00 per share to certain 2018 investors in consideration for completing the IPO later than March 2019 (the "Late IPO Warrants"). The warrants vested immediately. The warrants are classified within stockholders' equity at their fair value and were treated as a standalone instrument. The fair value of the warrant was determined to be \$685,441 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance. The fair value in the amount of \$685,441 is included in selling, general and administrative expenses for the year ended December 31, 2020.

8. Net Loss Per Share

The following table presents the calculation of basic and diluted net loss per share applicable to common stockholders:

	Year ended December 31,	
	2020	2019
Numerator:		
Net loss	\$ (2,847,894)	\$ (5,722,983)
Denominator:		
Weighted-average number of common shares outstanding - basic and diluted	8,212,581	8,180,937
Net loss per share applicable to common stockholders - basic and diluted	\$ (0.35)	\$ (0.70)

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The following shares were excluded from the calculation of diluted net loss per share applicable to common stockholders, prior to the application of the treasury stock method, because their effect would have been anti-dilutive for the periods presented:

	Year ended December 31,	
	2020	2019
Options to purchase shares of stock	3,596,444	3,369,144
Warrants to purchase shares of stock	721,913	474,723
Total	<u>4,318,357</u>	<u>3,843,867</u>

9. Income Taxes

No provision or benefit for federal or state income taxes has been recorded, as the Company has incurred a net loss for all of the periods presented, and the Company has provided a full valuation allowance against its deferred tax assets.

At December 31, 2020, the Company had federal net operating loss carryforwards of approximately \$7,019,000, which will begin to expire in varying amounts annually beginning in 2030. At December 31, 2020, the Company had state net operating loss carryforwards of approximately \$7,038,000. Utilization of net operating losses may be subject to substantial annual limitations due to the “change in ownership” provisions of the Internal Revenue Code, and similar state provisions. The annual limitations may result in the expiration of net operating losses before utilization. The Company has not yet conducted a study to determine if any such changes, including its 2020 IPO, have occurred that could limit the Company’s ability to use the net operating losses and tax credit carryforwards.

The reconciliation of the U.S. federal statutory rate to the Company’s effective tax rate is as follows:

	Year Ended December 31,	
	2020	2019
Tax at statutory rate	21.00%	21.00%
State income taxes	5.00%	4.99%
Permanent differences	(0.03)%	(0.09)%
State tax rate change	—	—
Change in valuation allowance	(25.97)%	(25.90)%
Effective tax rate	<u>0.00%</u>	<u>0.00%</u>

The significant components of the Company’s deferred tax asset consist of the following at December 31, 2020 and 2019:

	December 31,	
	2020	2019
Deferred tax assets:		
Net operating loss carryforwards	\$ 1,826,692	\$ 1,611,887
Stock-based compensation	<u>1,836,905</u>	<u>1,312,200</u>
Total deferred tax assets	3,663,597	2,924,087
Deferred tax asset valuation allowance	<u>(3,663,597)</u>	<u>(2,924,087)</u>
Net deferred tax asset	<u>\$ —</u>	<u>\$ —</u>

The Company has maintained a full valuation allowance against its deferred tax assets in all periods presented. A valuation allowance is required to be recorded when it is not more likely than not that some portion or all of the

net deferred tax assets will be realized. Since the Company cannot determine that it is more likely than not that it will generate taxable income, and thereby realize the net deferred tax assets, a full valuation allowance has been provided. The valuation allowance increased \$739,510 and \$1,482,369 for the years ended December 31, 2020 and 2019, respectively. The increases in 2020 and 2019 are primarily related to each year's taxable loss. The Company has no uncertain tax positions at December 31, 2020 and 2019 that would affect its effective tax rate. Since the Company is in a loss carryforward position, the Company is generally subject to U.S. federal and state income tax examinations by tax authorities for all years for which a loss carryforward is available.

10. Commitments and Contingencies

Impact of the COVID-19 Pandemic on Our Operations

The novel coronavirus SARS-Cov2, or COVID-19, pandemic is causing significant, industry-wide delays in clinical trials. There are multiple causes of these delays, including reluctance of patients to enroll or continue in trials for fear of exposure to COVID-19, local and regional shelter-in-place orders and regulations that discourage, hamper, or prohibit patient visits, healthcare providers and health systems shifting away from clinical trials toward the acute care of COVID-19 patients and the FDA and other regulators making product candidates for the treatment of COVID-19 a priority over product candidates unrelated to the pandemic.

As a result of the COVID-19 pandemic, commencement of enrollment of our clinical trials may be delayed. In addition, after enrollment in these trials, if patients contract COVID-19 during participation in the Company's trials or are subject to isolation or shelter-in-place restrictions, this may cause them to drop out of the Company's trials, miss scheduled doses or follow-up visits or otherwise fail to follow trial protocols. If patients are unable to follow the trial protocols or if the Company's trial results are otherwise affected by the consequences of the COVID-19 pandemic on patient participation or actions taken to mitigate COVID-19 spread, the integrity of data from the Company's trials may be compromised or not accepted by the FDA or other regulatory authorities, which could impact or delay a clinical development program. The Company anticipates that the COVID-19 pandemic may also impact manufacturing and distribution of materials necessary for the conductance of its clinical trials.

Although the Company did not experience a material impact on its operations during the year ended December 31, 2020, the Company notes the high level of difficulty in determining the future potential adverse financial impact and other effects of COVID-19 on the Company and its programs, given the rapid and dramatic evolution in the course and impact of the pandemic and the societal and governmental response to it.

Operating Leases

In June 2018, the Company entered into a one-year, non-cancelable operating lease for space in Boston, Massachusetts. The total lease obligation was \$54,000, payable in 12 equal monthly installments commencing August 1, 2018. Since the end of the one-year initial term on July 31, 2019, the lease continues on a month-to-month basis.

Employment Agreements

2020 CEO Employment Agreement

The Company entered into a written employment agreement with its CEO which became effective upon the closing of the Company's December 2020 IPO (the "2020 CEO Agreement"). The 2020 CEO Agreement supersedes the 2014 CEO employment agreement in all respects. Under the 2020 CEO Agreement, the CEO serves as the President and Chief Executive Officer of the Company. He receives an annual base salary of \$455,000 and is eligible to receive an annual performance cash bonus with a target amount equal to 35% of his annual base salary, based upon achievement of performance goals established by the compensation committee of the board of directors. In addition, upon the completion of the IPO, the CEO was granted a stock option to purchase 100,000 shares of Company common stock under the 2020 Plan which will vest over a three-year period subject to continued employment through each vesting date with an exercise price of \$10.00 per share.

2020 CFO Employment Agreement

The Company entered into a written employment agreement with its CFO which became effective upon the closing of the Company's December 2020 IPO (the "2020 CFO Agreement"). The 2020 CFO Agreement supersedes the 2018 Flagship Agreement in all respects. Under the CFO Agreement, the CFO receives an annual base salary of \$375,000 and is eligible to receive a discretionary annual target cash bonus of 30% of the annual base salary. In addition, upon the completion of the IPO, the CFO was granted a stock option to purchase 100,000 shares of Company common stock under the 2020 Plan which will vest over a three-year period subject to continued employment through each vesting date with an exercise price of \$10.00 per share.

2014 CEO Agreement

On April 1, 2014, the Company entered into a written employment agreement (the "2014 CEO Agreement") with the Company's CEO at an initial base annual salary of \$224,000, subject to adjustment by the board of directors. His base salary for 2020 was \$292,800. The CEO Agreement provided an initial 10-year fully vested option to purchase 43,708 shares of stock of the Company at an exercise price of \$0.38 per share. For so long as he remains employed by the Company, the Company agrees to grant an annual option to purchase 21,854 shares of stock of the Company at an exercise price equal to the fair market value of the shares at the date of the grant to be vested pro rata in monthly installments over 12 months from the date of the grant. Bonuses, additional stock option grants or other compensation may be awarded from time to time at the sole discretion of the Company's board of directors. As of December 31, 2019, the CEO has received options to purchase up to 196,685 shares of stock of the Company.

2018 CFO Consulting Agreement

In April 2018, the Company entered into a consulting agreement with Flagship Consulting, Inc. (the "2018 Flagship Agreement") in connection with CFO consulting services to be rendered to the Company. The agreement provided for \$12,500 per month to be paid in cash, with an additional \$12,500 per month accruing on a convertible revolving demand promissory note.

Guarantees

As permitted under Delaware law, the Company indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity. The term of the indemnification is for the officer's or director's lifetime. The maximum potential amount of future payments the Company could be required to make is unlimited; however, the Company has directors' and officers' insurance coverage that limits its exposure and enables it to recover a portion of any future amounts paid.

The Company leases office space under a non-cancelable operating lease. The Company has standard indemnification arrangements under the lease that requires it to indemnify the landlord against all costs, expenses, fines, suits, claims, demands, liabilities, and actions directly resulting from any breach, violation or nonperformance of any covenant or condition of the Company's lease.

In the ordinary course of business, the Company enters into indemnification agreements with certain suppliers and business partners where the Company has certain indemnification obligations limited to the costs, expenses, fines, suits, claims, demands, liabilities and actions directly resulting from the Company's gross negligence or willful misconduct, and in certain instances, breaches, violations or nonperformance of covenants or conditions under the agreements.

As of December 31, 2020, and 2019, the Company had not experienced any material losses related to these indemnification obligations, and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related reserves were established.

License Agreements

Emory University License Agreements

On June 8, 2010, the Company entered into two license agreements with Emory University, the first for which the Company granted to Emory 393,370 shares of its stock ("License A"), and the second for which the Company granted to Emory 437,078 shares of its stock ("License B"). The Company recorded \$313,500 which represented the fair value of the shares issued as part of the total consideration to Emory for the licenses. The fair value of the shares was determined to be more reliably measurable than the fair value of the consideration received. In exchange, Emory granted the Company and its affiliates an exclusive worldwide sublicensable right and license to practice under certain patent rights and technology to make, have, develop, promote, market, import, export, distribute, offer for sale, sell and otherwise use the licensed products in the field of use anywhere in the world. Unless sooner terminated as provided elsewhere in the agreement, the License A term is the later of 10 years or until the expiration of the patent rights. License B was terminated in May 2013 under the normal course of business. No shares were forfeited or returned and are still owned by Emory.

The Company is required to pay royalties on net sale of products and processes that are covered by the patent rights licensed under the agreement at a percentage in the low single digits, subject to reductions and offsets in certain circumstances, as well as a royalty on net sales of products that the Company sublicenses ranging from low single digit to low double digit percentages based upon stage of development. The Company is obligated to pay potential total milestone payments of \$280,000 based upon achievement of certain stages of development. During the years ended December 31, 2020 and 2019, the Company did not incur any milestone fees.

Duke University License Agreement

On June 18, 2010, the Company entered into a license agreement with Duke University (the "Duke License") pursuant to which Duke granted the Company and its affiliates an exclusive worldwide license to practice under certain patent rights and technology to develop, invent, characterize, make, have made, import, export, distribute, offer for sale, sell and otherwise use the licensed patent rights and technology. Unless sooner terminated as provided elsewhere in the agreement, the Duke License term is the later of 10 years or until the expiration of the patent rights (see below).

As part of the total consideration for the Duke License, in 2010 the Company issued 611,909 shares of its stock to Duke, which the Company recorded at the fair value of the shares in the amount of \$247,500. The fair value of the shares was determined to be more reliably measurable than the fair value of the consideration received.

The Company is required to pay royalties on net sales of products and processes that are covered by patent rights licensed under the agreement at a percentage in the low single digits, subject to reductions and offsets in certain circumstances, as well as a royalty on net sales of products that the Company sublicenses ranging from low single digit to mid-single digit percentages based upon stage of development. The Company is obligated to pay potential total milestone payments of \$280,000 based upon achievement of certain stages of development. During the years ended December 31, 2020 and 2019, the Company did not incur any royalty or milestone fees under the Duke License.

The Duke License was terminated on April 16, 2020 with no termination cost to the Company.

Sphaera Pharma Pte. Ltd.

On March 2, 2012, the Company entered into a collaborative research and development agreement, or the Sphaera Agreement with Sphaera Pharma Pte. Ltd., or Sphaera, to collaborate on the development of the prodrug technology to be applied to protein kinase inhibitors for oncology and non-oncology indications. Under the terms of the Sphaera Agreement, each party would retain its pre-existing intellectual property, but any intellectual

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property conceived or reduced to practice under and certain results arising from the Sphaera Agreement would be assigned to the Company. On October 5, 2012, the Company and Sphaera amended the Sphaera Agreement to reflect joint patent applications in the U.S. and India by us and Sphaera for a series of novel compounds. While the underlying intellectual property would be jointly owned, the Company has the exclusive right to commercialize 13 of the 24 linkers detailed in the filed patent applications, collectively, the Company Compounds, including the linker attached to Imatinib that comprises the 001Pro oncology product, with the remaining nine linkers owned by Sphaera, collectively, the Sphaera Compounds. Sphaera has the right to develop the Company Compounds for oncology indications but may not commercialize the Company Compounds unless the Company abandons the Company Compounds. The Company has notified Sphaera that it does not intend to abandon any of the Company Compounds. The Company currently does not have the right to develop the Sphaera Compounds. Additionally, if either party files an IND for a Company Compound for an oncology indication in humans, the non-filing party is prohibited from developing such Company Compound.

The prosecution of patents related to the Company Compounds, which includes the prodrug technology, is the responsibility of the Company.

As consideration for its services, Sphaera has received a fixed fee of \$160,000 and is entitled to the following milestone payments upon achievement of specified milestones:

Milestone Event	Payment
First dosing of patient in US Phase 1 trial	\$ 250,000
US Phase 1 trial completion with endpoints met	500,000
US Phase 2 trial completion with endpoints met	875,000
FDA Approval	4,000,000
Total potential milestone payments	<u>\$ 5,625,000</u>

No milestones have been achieved and, as such, no milestone payments have been made to Sphaera, and the Company does not anticipate that any milestone payments will be made to Sphaera within the next six months. Sphaera is also entitled to royalty payments of a percentage of annual net sales and sublicenses ranging in the mid-single digits.

The prosecution of patents related to the Company Compounds, which includes the prodrug technology, is the responsibility of the Company. The parties did not contemplate the development of IkT-001Pro as a competitor to the generic Imatinib now on the market. As such, we and Sphaera are negotiating our financial obligations to ensure furtherance of the product to market.

Litigation

From time to time, the Company may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. When the Company is aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. If it is probable that a loss will result and the amount of the loss can be reasonably estimated, the Company will record a liability for the loss. In addition to the estimated loss, the recorded liability would include probable and estimable legal costs associated with the claim or potential claim. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm the Company's business. There is no pending litigation involving the Company at this time.

11. Simple Retirement Account for Employees (the "Simple IRA")

The Company established an individual retirement plan for employees effective January 1, 2013 under Section 408(p) of the Internal Revenue Code. The Simple IRA covers substantially all employees of the

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Company who received at least \$5,000 in compensation from the Company during any two preceding years and are reasonably expected to receive at least \$5,000 in compensation from the Company in the current year of participation. Subject to certain overall statutory limitations, the Company must match employee contributions up to 3% of employees' qualified compensation for the year. Company contributions under the Simple IRA were \$6,580 and \$0 for the years ended December 31, 2020 and 2011, respectively.

Inhibikase Therapeutics, Inc.
Condensed Balance Sheets

	March 31, 2021 (unaudited)	December 31, 2020 (Note 3)
Assets		
Current assets:		
Cash	\$ 9,609,631	\$ 13,953,513
Grants receivable	332,774	—
Prepaid research and development	712,674	774,356
Prepaid expenses and other current assets	1,216,173	54,837
Total	11,871,252	14,782,706
Deferred offering costs	2,783	—
Total assets	<u>\$ 11,874,035</u>	<u>\$ 14,782,706</u>
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 715,016	\$ 1,720,680
Accrued expenses and other current liabilities	627,399	632,934
Deferred revenue	1,251,349	2,325,741
Notes payable	994,789	42,534
Total	3,588,553	4,721,889
Notes payable, net of current portion	248,911	276,461
Total liabilities	<u>3,837,464</u>	<u>4,998,350</u>
Commitments and contingencies (see Note 11)		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 10,000,000 shares authorized at March 31, 2021, and December 31, 2020; 0 shares issued and outstanding at March 31, 2021, and December 31, 2020	—	—
Common stock, \$0.001 par value; 100,000,000 and 30,000,000 shares authorized; 10,059,849 and 10,050,849 shares issued and outstanding at March 31, 2021 and December 31, 2020, respectively	10,060	10,051
Additional paid-in capital	25,695,203	24,805,929
Accumulated deficit	(17,668,692)	(15,031,624)
Total	<u>8,036,571</u>	<u>9,784,356</u>
Total liabilities and stockholders' equity	<u>\$ 11,874,035</u>	<u>\$ 14,782,706</u>

See accompanying notes to condensed financial statements.

Inhibikase Therapeutics, Inc.
Condensed Statements of Operations
(Unaudited)

	Three Months Ended	
	March 31,	
	2021	2020
Revenue:		
Grant revenue	\$ 1,407,165	\$ 270,787
Total revenue	<u>1,407,165</u>	<u>270,787</u>
Costs and expenses:		
Research and development	2,431,860	283,114
Selling, general and administrative	<u>1,600,576</u>	<u>527,688</u>
Total costs and expenses	<u>4,032,436</u>	<u>810,802</u>
Loss from operations	(2,625,271)	(540,015)
Interest expense	<u>(11,797)</u>	<u>(7,425)</u>
Net loss	<u>\$ (2,637,068)</u>	<u>\$ (547,440)</u>
Net loss per share – basic and diluted	<u>\$ (0.26)</u>	<u>\$ (0.07)</u>
Weighted-average number of common shares – basic and diluted	<u>10,053,949</u>	<u>8,181,734</u>

See accompanying notes to condensed financial statements.

Inhibikase Therapeutics, Inc.
Condensed Statements of Stockholders' Equity (Deficit)
(Unaudited)

	<u>Common Stock</u>		<u>Additional Paid-In Capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Equity</u>
	<u>Shares</u>	<u>Amount</u>			
Balance at December 31, 2020	10,050,849	\$ 10,051	\$ 24,805,929	\$ (15,031,624)	\$ 9,784,356
Stock-based compensation expense	—	—	591,124	—	591,124
Warrant expense	—	—	237,768	—	237,768
Issuance of common stock	9,000	9	60,382	—	60,391
Net loss	—	—	—	(2,637,068)	(2,637,068)
Balance at March 31, 2021	<u>10,059,849</u>	<u>\$ 10,060</u>	<u>\$ 25,695,203</u>	<u>\$ (17,668,692)</u>	<u>\$ 8,036,571</u>

	<u>Common Stock</u>		<u>Additional Paid-In Capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Equity (Deficit)</u>
	<u>Shares</u>	<u>Amount</u>			
Balance at December 31, 2019	8,180,937	\$ 8,181	\$ 7,685,533	\$ (12,183,730)	\$ (4,490,016)
Stock-based compensation expense	—	—	139,758	—	139,758
Issuance of warrants	—	—	190,993	—	190,993
Issuance of common stock	874	1	4,870	—	4,871
Net loss	—	—	—	(547,440)	(547,440)
Balance at March 31, 2020	<u>8,181,811</u>	<u>\$ 8,182</u>	<u>\$ 8,021,154</u>	<u>\$ (12,731,170)</u>	<u>\$ (4,701,834)</u>

See accompanying notes to condensed financial statements.

Inhibikase Therapeutics, Inc.
Condensed Statements of Cash Flows
(Unaudited)

	Three Months Ended March 31,	
	2021	2020
Operating activities		
Net loss	\$ (2,637,068)	\$ (547,440)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	591,124	139,758
Non-cash consulting fees	60,391	37,500
Non-cash PPP loan forgiveness	(27,550)	—
Warrant expense	237,768	190,993
Changes in operating assets and liabilities:		
Grants receivable	(332,774)	—
Prepaid expenses and other assets	200,581	3,043
Prepaid research and development	61,682	—
Accounts payable	(1,008,447)	(255,922)
Accrued expenses and other current liabilities	(5,535)	133,684
Deferred revenue	(1,074,392)	42,952
Net cash used in operating activities	<u>(3,934,220)</u>	<u>(255,432)</u>
Financing activities		
Proceeds from notes payable	—	245,250
Proceeds from issuance of common stock	—	4,870
Repayments of note payable	(409,662)	—
Net cash provided by (used in) financing activities	<u>(409,662)</u>	<u>250,120</u>
Net decrease in cash	(4,343,882)	(5,312)
Cash at beginning of period	13,953,513	18,457
Cash at end of period	<u>\$ 9,609,631</u>	<u>\$ 13,145</u>
Supplemental disclosures of cash flow information		
Cash paid for interest	\$ 11,797	\$ 1,772
Non-cash financing activities		
Notes payable settled with new notes payable	\$ —	\$ 98,419
Insurance premium financing	\$ 1,361,916	\$ —
PPP loan forgiveness	\$ 27,550	\$ —
Public offering costs	\$ 2,783	\$ 7,759

See accompanying notes to condensed financial statements.

Inhibikase Therapeutics, Inc.
Notes to Condensed Financial Statements
(Unaudited)

1. Nature of Business

We are a clinical stage pharmaceutical company developing therapeutics for Parkinson's Disease, or PD, and related disorders that arise inside and outside of the brain. In 2021, we commenced clinical development of IKT-148009, a small molecule Abelson Tyrosine Kinase inhibitor we believe can modify the course of Parkinson's disease and its manifestation in the gastrointestinal tract, or GI. Results to date of our ongoing Phase 1 Single and Multiple Ascending Dose escalation study (SAD and MAD, respectively) in older and elderly healthy volunteers have revealed important insights into the metabolism of IKT-148009 in human subjects. IKT-148009 has a half-life of greater than 24 hours, and just a 25 mg once daily oral dose in older and elderly healthy subjects in our Phase 1 study reached exposures that are consistent with the exposure to the drug that resulted in therapeutic efficacy in animal models of progressive PD. This has led to an acceleration of the clinical development program by more than 6 months. Subject to discussions with the FDA, we plan to initiate dosing in a Parkinson's patient population as part of the Phase 1 MAD study. Clinical development of IKT-148009 for the GI complications in PD patients will cross-reference the Phase 1 Study of IKT-148009 for the treatment of PD.

2. Liquidity and Going Concern

The Company has recognized recurring losses. At March 31, 2021, the Company had working capital of \$8,282,699, an accumulated deficit of \$17,668,692, cash of \$9,609,631, accounts payable and accrued expenses of \$1,342,415 and current notes payable of \$994,789. The Company had active grants in the amount of \$1,546,730, of which \$772,420 remained available in accounts held by the U.S. Treasury as of April 30, 2021.

The future success of the Company is dependent on its ability to successfully obtain additional working capital, obtain regulatory approval for and successfully launch and commercialize its product candidates and to ultimately attain profitable operations. Historically, the Company has funded its operations primarily through cash received in connection with revenue from its various grant programs. In addition, during December 2020, the Company raised approximately \$14.6 million in working capital from its IPO.

The Company is subject to a variety of risks similar to other early-stage life science companies including, but not limited to, the successful development, regulatory approval, and market acceptance of the Company's product candidates, development by its competitors of new technological innovations, protection of proprietary technology, and raising additional working capital. The Company has incurred significant research and development expenses and general and administrative expenses related to its product candidate programs. The Company anticipates costs and expenses to increase in the future as the Company continues to develop its product candidates.

The Company may seek to fund its operations through additional public equity, private equity, or debt financings, as well as other sources. However, the Company may be unable to raise additional working capital, or if it is able to raise additional capital, it may be unable to do so on commercially favorable terms. The Company's failure to raise capital or enter into such other arrangements if and when needed, would have a negative impact on the Company's business, results of operations and financial condition and the Company's ability to continue to develop its product candidates.

As certain elements of the Company's operating plan are outside of the Company's control, including the receipt of anticipated grants and funding from a future capital raise, they cannot be considered probable. If the Company does not receive additional capital from future anticipated grants and future anticipated capital raises, its business plan will be scaled down to preclinical activities and its Phase I PD trial in humans will be delayed.

These conditions raise substantial doubt regarding the Company's ability to continue as a going concern for a period of one year after the date the financial statements are issued. Management's plan to alleviate the conditions that raise substantial doubt include additional equity raises, suspending or delaying certain research projects and capital expenditures and eliminating certain future operating expenses in order to fund operations at reduced levels for the Company to continue as a going concern.

The accompanying 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 unaudited condensed 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 the uncertainties described above.

3. Basis of Presentation and Significant Accounting Policies

Basis of Presentation of Interim Financial Statements

The accompanying unaudited condensed financial statements were prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") and, in the opinion of management, include all normal and recurring adjustments necessary to present fairly the results of the interim periods shown. The December 31, 2020 balance sheet was derived from the December 31, 2020 audited financial statements. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles ("US GAAP") have been condensed or omitted pursuant to such SEC rules and regulations. Management believes that the disclosures made are adequate to make the information presented not misleading. The results for the interim periods are not necessarily indicative of results to be expected for the fiscal year ending December 31, 2021. The condensed unaudited financial statements contained herein should be read in conjunction with the Company's annual audited financial statements and notes thereto for the year ended December 31, 2020 included in the Company's Annual Report filed on SEC Form 10-K.

These unaudited condensed financial statements have been prepared on the assumption that the Company will be able to realize its assets and discharge its liabilities in the normal course of business. The financial statements do not include any adjustments relating to recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

On August 21, 2020, the Company filed a Certificate of Amendment of its Certificate of Incorporation with the Secretary of State of the State of Delaware that effected a one-for-1.14396 (1:1.14396) reverse stock split of its common stock, par value \$.001 per share, effective August 24, 2020. All warrant, option, share, and per share information in the Company's financial statements gives retroactive effect to the one-for-1.14396 reverse stock split that was effected on August 24, 2020.

The condensed financial statements have been prepared in conformity with US GAAP. Any reference in these notes to applicable guidance is meant to refer to the authoritative US GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB").

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and are generally 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.

The Company qualifies as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. The JOBS Act permits an emerging growth company such as the Company 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. The

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Company has elected not to “opt out” of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until such time that it either (i) irrevocably elects to “opt out” of such extended transition period or (ii) no longer qualifies as an emerging growth company.

Use of Estimates

The preparation of the Company’s financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company utilizes certain estimates in the determination of the fair value of its stock options and warrants, deferred tax valuation allowances and revenue recognition, to record expenses relating to research and development contracts and accrued expenses. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results could differ from such estimates.

Concentrations of Credit Risk

For the three months ended March 31, 2021 and 2020, the Company derived more than 90% of its total revenue from a single source, the United States Government, in the form of federal research grants.

Revenue Recognition

The Company generates revenue from research and development grants under contracts with third parties that do not create customer-vendor relationships. The Company’s research and development grants are non-exchange transactions and are not within the scope of ASC Topic 606, Revenue from Contracts with Customers (“ASC 606”). Contribution revenue earned from activities performed pursuant to research and development grants is reported as grant revenue in the Company’s statements of operations. Revenues from these grants is recognized as the Company incurs qualifying expenses as stipulated by the terms of the respective grant. Cash received from grants in advance of incurring qualifying expenses is recorded as deferred revenue. The Company records revenue and a corresponding receivable when qualifying costs are incurred before the grants are received.

4. Supplemental Condensed Balance Sheet Information

Accrued expenses and other current liabilities consist of the following:

	March 31, 2021	December 31, 2020
Accrued consulting	\$162,001	\$ 115,405
Accrued legal and professional fees	82,802	383,286
Accrued research and development	378,775	83,491
Accrued interest	499	1,673
Accrued other	3,322	49,079
Total accrued expenses and other current liabilities	<u>\$627,399</u>	<u>\$ 632,934</u>

5. Notes Payable

Notes payable outstanding were \$1,243,700 and \$318,995 at March 31, 2021 and December 31, 2020, respectively.

	March 31, 2021	December 31, 2020
AON	\$ 994,789	\$ —
Fifth Restated Note	—	42,534
PPP Note	—	27,550
CEO Restated Note	248,911	248,911
Total notes payable	<u>\$1,243,700</u>	<u>\$ 318,995</u>

Future principal payments on the notes payable as of March 31, 2021, are as follows:

Year ended December 31,	
2021	\$ 994,789
2022	248,911
2023	—
2024	—
2025	—
Total notes payable	<u>\$ 1,243,700</u>

Note Payable to AON

In January 2021, the Company entered into an insurance premium financing and security agreement with AON Premium Finance, LLC (“AON”). Under the agreement, the Company financed \$1,361,916 million of certain premiums at a 3.49% annual interest rate. As of March 31, 2021, the outstanding principal of the loan was \$994,789 and is included on the condensed balance sheet in Notes payable. The final payment is due in November 2021.

Revolving Demand Promissory Note

During 2019 and 2020, the Company entered into a series of promissory notes that were renegotiated and partially settled over 2019 and 2020.

On January 1, 2020, the Company issued a note (the “2020 Note”) in the face amount of \$103,586 bearing 5.25% APR simple interest as settlement in full on the 2019 Note principal of \$98,419 plus accrued interest of \$5,167 that matured on January 1, 2020. The 2020 Note was scheduled to mature on January 1, 2021. Upon occurrence of certain conditions including the sale of a division of the Company or upon the date on which the Company closes on certain financings, the due date for some or all of the unpaid principal and accrued and unpaid interest may be accelerated. The Company assessed the terms and features of the 2020 Note and determined that none of the terms and features represented embedded derivatives that require bifurcation.

On June 30, 2020, the holder of the 2020 Note and the Company entered into an agreement to settle the 2020 Note early. As full consideration and settlement of the 2020 Note’s June 30, 2020 principal balance plus accrued and unpaid interest in the amount of \$106,334, the Company issued a new promissory note to the holder in the amount of \$42,534 (the “Fifth Restated Note”) with substantially similar terms as the 2020 Note. In addition, the holder subscribed for the purchase of 11,594 unregistered shares of the Company’s common stock at a subscription price of \$63,800, or \$5.50 per share. The issuance of shares under the subscription agreement and the issuance of the Fifth Restated Note satisfied the payoff of the 2020 Note without premium or discount. The balance of the Fifth Restated Note was \$42,534 on December 31, 2020 and is included in Notes payable.

The Fifth Restated Note was scheduled to mature on the earlier of a significant transaction, including an initial public offering, sale of substantially all assets or change of control, or January 1, 2021. The Company consummated its IPO on December 28, 2020 and the principal balance of the Fifth Restated Note plus accrued and unpaid interest was settled in full in cash on January 1, 2021.

Note Payable to CEO

On February 5, 2020 (the “Issue Date”), the Company issued a note payable to its CEO (the “CEO Note”) in the face amount of \$245,250 bearing 1.59% APR simple interest in exchange for cash. The net proceeds of \$245,250 were used as working capital by the Company. The note carried an original maturity of the earlier of the sixth month following the Issue Date or the date the Company has sufficient funds to repay the CEO Note. If an event of default occurs and is continuing, the Company agrees to issue a warrant to the holder with a strike price of \$4.87 per share for a number of shares equal to 150% of the value of the loan. The Company assessed the terms and features of the CEO Note and determined that none of the terms and features represented embedded derivatives that require bifurcation.

On June 13, 2020, the holder of the CEO Note and the Company entered into a restated agreement (the “CEO Restated Note”). The CEO Restated Note in the amount of \$248,911 extends the stated maturity date of the CEO Note from the earlier of the sixth month following the (original) Issue Date or the date the Company has sufficient funds to repay the note to the earlier of the 30th month following the (original) Issue Date or the date the Company has sufficient funds to repay the CEO Restated Note. The Issue Date, February 5, 2020, is unchanged. In addition, the interest rate was reduced, effective as of the Issue Date, from 1.59% APR to 0.25%. The CEO Restated Note also changed the exercise price of the warrant from \$4.87 to \$4.81 per share in the case of any default. The other provisions of the CEO Restated Note are the same, in all material respects, to the CEO Note. The Company and its CEO have agreed that the CEO Restated Note will not be repaid for a minimum of 12 months following the closing of its initial public offering. The principal balance of the CEO Note was \$248,911 at March 31, 2021 and at December 31, 2020 and is included on the condensed balance sheets in Notes payable, net of current portion.

The Payroll Protection Program Loan (the “PPP Loan”)

On May 4, 2020, the Company received \$27,550 in loan proceeds as part of the Federal CARES Act Paycheck Protection Program (the “PPP Act” or “PPP”) with a 1% annual interest rate. Some or all of this loan qualified for forgiveness if the Company expended not less than 60% of the loan proceeds on qualified payroll costs. During the three months ended March 31, 2021, it was determined by the lender and by the Small Business Administration that the Company met the contractual conditions for forgiveness of the entire PPP Loan plus accrued interest and it was forgiven. The \$27,550 principal balance of the PPP Loan at December 31, 2020 is included on the condensed balance sheet in Notes payable, net of current portion.

6. Stockholders’ Deficit

Each share of common stock is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of holders of all classes of stock outstanding. A total of 4,386,985 and 4,318,357 shares of common stock were reserved for issuance upon the exercise of outstanding stock options and warrants as of March 31, 2021 and December 31, 2020, respectively.

Reverse Stock Split

On August 20, 2020, the board of directors adopted resolutions proposing that each 1.14396 shares of the Company’s issued and outstanding common stock, par value \$0.001 per share, be automatically converted into one fully paid and nonassessable share of common stock, par value \$0.001 (the “Reverse Stock Split”) with cash

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in lieu of fractional shares. On August 21, 2020, shareholders representing a majority of the issued and outstanding common stock approved the Reverse Stock Split. On August 21, 2020, the Company filed with the Delaware Secretary of State its Certificate of Amendment to its Certificate of Incorporation, effective as of August 24, 2020.

Share Issuances

In January 2020, an accredited investor subscribed for, and the Company issued, 874 shares of its stock in a private placement transaction at a per share price of \$5.57. Net proceeds were approximately \$4,870. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.

During the three months ended March 31, 2021, an accredited investor subscribed for, and the Company issued, 9,000 shares of its stock in exchange for consulting services. The fair value of the stock was \$60,391 based upon the closing price of the shares on the date of the transaction. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance. The \$60,391 fair value is a component of selling, general and administrative costs for the three months ended March 31, 2021.

7. Stock-Based Compensation

2020 Equity Incentive Plan

The Company's 2020 Equity Incentive Plan (the "2020 Plan") was established for granting stock incentive awards to directors, officers, employees and consultants to the Company.

Stock Options

During the three months ended March 31, 2021 the Company granted 68,628 options to its scientific advisory board members with a strike price of \$6.82 per share, vesting immediately, with an aggregate grant date fair value of \$259,674. No options were granted during the three months ended March 31, 2020.

Stock-Based Compensation Expense

The following table summarizes the stock-based compensation expense for stock options granted to employees and non-employees:

	Three Months Ended	
	March 31,	
	2021	2020
Research and development	\$ 368,495	\$ 65,020
Selling, general and administrative	222,629	74,738
Total stock-based compensation expense	<u>\$ 591,124</u>	<u>\$ 139,758</u>

8. Warrants

Warrants Issued

On March 31, 2020, the Company issued a warrant to purchase up to 26,225 shares of its stock to one of its consultants in exchange for services. The warrant contains a strike price of \$5.67 per share and has a seven-year contractual term. The warrant is classified within stockholders' equity (deficit) at its fair value and was treated as a standalone instrument. The fair value of the warrant was determined to be \$101,478 utilizing the Black-Scholes-Merton option-pricing model at the time of issuance and is included in selling, general and administrative expenses for the three months ended March 31, 2020. There were no warrants issued during the three months ended March 31, 2021. The Company recognized \$237,768 in warrant expense for the three months ended March 31, 2021, which is included in selling, general and administration expense.

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Warrants Exercised

No warrants were exercised for the three months ended March 31, 2021 and 2020.

9. Net Loss Per Share

The following table presents the calculation of basic and diluted net loss per share applicable to common stockholders:

	Three Months Ended March 31,	
	2021	2020
Numerator:		
Net loss	\$ (2,637,068)	\$ (547,440)
Denominator:		
Weighted-average number of common shares outstanding – basic and diluted	10,053,949	8,181,734
Net loss per share applicable to common stockholders – basic and diluted	\$ (0.26)	\$ (0.07)

The following shares were excluded from the calculation of diluted net loss per share applicable to common stockholders, prior to the application of the treasury stock method, because their effect would have been anti-dilutive for the periods presented:

	Three Months Ended March 31,	
	2021	2020
Options to purchase shares of stock	3,665,072	3,369,144
Warrants to purchase shares of stock	721,913	474,723
Total	4,386,985	3,843,867

10. Income Taxes

During the three months ended March 31, 2021 and 2020, there was no provision for income taxes as the Company incurred losses during those periods. Deferred tax assets and liabilities reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company recorded a full valuation allowance against its deferred tax assets, as the Company believes it is more likely than not the deferred tax assets will not be realized.

11. Commitments and Contingencies

Impact of the COVID-19 Pandemic on Our Operations

The novel coronavirus SARS-Cov2, or COVID-19, pandemic is causing significant, industry-wide delays in clinical trials. There are multiple causes of these delays, including reluctance of patients to enroll or continue in trials for fear of exposure to COVID-19, local and regional shelter-in-place orders and regulations that discourage, hamper, or prohibit patient visits, healthcare providers and health systems shifting away from clinical trials toward the acute care of COVID-19 patients and the FDA and other regulators making product candidates for the treatment of COVID-19 a priority over product candidates unrelated to the pandemic.

As a result of the COVID-19 pandemic, commencement of enrollment of our clinical trials may be delayed. In addition, after enrollment in these trials, if patients contract COVID-19 during participation in the Company's trials or are subject to isolation or shelter-in-place restrictions, this may cause them to drop out of the Company's trials, miss scheduled doses or follow-up visits or otherwise fail to follow trial protocols. If patients are unable to

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follow the trial protocols or if the Company's trial results are otherwise affected by the consequences of the COVID-19 pandemic on patient participation or actions taken to mitigate COVID-19 spread, the integrity of data from the Company's trials may be compromised or not accepted by the FDA or other regulatory authorities, which could impact or delay a clinical development program. The Company anticipates that the COVID-19 pandemic may also impact manufacturing and distribution of materials necessary for the conductance of its clinical trials.

Although the Company did not experience a material impact on its operations during the three months ended March 31, 2021 and 2020, the Company notes the high level of difficulty in determining the future potential adverse financial impact and other effects of COVID-19 on the Company and its programs, given the rapid and dramatic evolution in the course and impact of the pandemic and the societal and governmental response to it.

Litigation

From time to time, the Company may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. When the Company is aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. If it is probable that a loss will result and the amount of the loss can be reasonably estimated, the Company will record a liability for the loss. In addition to the estimated loss, the recorded liability would include probable and estimable legal costs associated with the claim or potential claim. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm the Company's business. There is no pending litigation involving the Company at this time.

8,000,000 Shares of Common Stock



Inhibikase Therapeutics, Inc.

PRELIMINARY PROSPECTUS

ThinkEquity

a division of Fordham Financial Management, Inc.

JonesTrading

, 2021

Through and including _____, 2021 (the 25th day after the date of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This 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.

PART II**INFORMATION NOT REQUIRED IN THE 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 us. All amounts are estimates except the SEC's registration fee and the Financial Industry Regulatory Authority, Inc.'s filing fee.

	Amount to be Paid
SEC Registration Fee	\$ 5,979.23
FINRA filing fee	8,828.06
Printing expenses	130,192.71
Legal fees and expenses	375,000
Accounting fees and expenses	45,000
Transfer agent and registrar fees	15,000
Miscellaneous expenses	6,000
Total	<u>\$ 586,000</u>

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in our best interests, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. The Delaware General Corporation Law further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. The amended and restated certificate of incorporation of the registrant provides for the indemnification of the registrant's directors and officers to the fullest extent permitted under the Delaware General Corporation Law. In addition, the amended and restated bylaws of the registrant require the registrant to fully indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that such person is or was a director or officer of the registrant, or is or was a director or officer of the registrant serving at the registrant's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, to the fullest extent permitted by applicable law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except (i) for any breach of the director's duty of loyalty to the corporation or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) for payments of unlawful dividends or unlawful stock repurchases or redemptions; or (iv) for any transaction from which the director derived an improper personal benefit. The registrant's amended and restated certificate of incorporation provides that the registrant's directors shall not be personally liable to it or its stockholders for monetary damages for breach of fiduciary duty as a director and that if the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of the registrant's directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

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As permitted by the Delaware General Corporation Law, the registrant intends to enter into separate indemnification agreements with each of the registrant's directors and certain of the registrant's officers which require the registrant, among other things, to indemnify them against certain liabilities which may arise by reason of their status as directors, officers or certain other employees.

The registrant has obtained and maintains insurance policies under which its directors and officers are insured, within the limits and subject to the limitations of those policies, against certain expenses in connection with the defense of, and certain liabilities which might be imposed as a result of, actions, suits or proceedings to which they are parties by reason of being or having been directors or officers. The coverage provided by these policies may apply whether or not the registrant would have the power to indemnify such person against such liability under the provisions of the Delaware General Corporation Law.

These indemnification provisions and the indemnification agreements the registrant intends to enter into between the registrant and the registrant's officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act of 1933, as amended.

The underwriting agreement between the registrant and the representative of the underwriters to be filed as Exhibit 1.1 to this registration statement provides for the indemnification by the underwriters of the registrant's directors and officers and certain controlling persons against specified liabilities, including liabilities under the Securities Act with respect to information provided by the underwriters specifically for inclusion in the registration statement.

Item 15. Recent Sales of Unregistered Securities

The following list sets forth information regarding all unregistered securities sold or issued by us in the past three years, reflecting the one-for-1.14396 reverse stock split of our common stock effected on August 24, 2020:

- a) On August 31, 2020, we issued a convertible revolving demand promissory note with a principal amount of \$686,013, replacing a convertible revolving demand promissory note dated December 31, 2019.
- b) On August 25, 2020, we issued 13,301 shares of our common stock to an accredited investor in connection with the cashless exercise of a warrant exercisable for 21,854 shares of our common stock.
- c) On August 25, 2020, we issued two warrants to purchase 150,000 and 21,854 shares of our common stock at an exercise price of \$5.90 per share to our chief financial officer.
- d) On June 30, 2020, we issued and sold 11,594 shares of our common stock in connection with a partial conversion of a promissory note at a conversion price of \$5.50 per share and issued a promissory note with a principal amount of \$42,534 to a consultant in satisfaction of a promissory note.
- e) On January 20, 2020, we issued and sold 874 shares of our common stock to an accredited investor at \$5.57 per share for aggregate proceeds of \$4,870.
- f) On December 31, 2019, we issued a convertible revolving demand promissory note with a principal amount of \$575,375, replacing a convertible revolving demand promissory note dated April 3, 2018.
- g) On January 1, 2019 and March 31, 2020, we issued warrants to purchase up to 20,533 and 26,225 shares of common stock respectively at an exercise price of \$4.79 and \$5.67 per share, respectively, to a consultant.
- h) In April 2019, we issued a warrant to purchase up to 5,245 shares of common stock at an exercise price of \$5.57 per share to each of the six members of the Scientific Advisory Board.

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- i) In October 2018, we issued a warrant to purchase up to 400,866 shares of our common stock at an exercise price of \$4.79 per share to a consultant in exchange for strategic consulting services.
- j) In June and July 2018, we issued and sold a total of 204,870 shares of our common stock to an accredited investor at \$4.79 per share for aggregate proceeds of \$981,988.
- k) In June 2018, we issued 11,432 shares of our common stock to an accredited investor upon conversion of \$54,797 of principal and accrued interest under an outstanding convertible promissory note.
- l) In May 2018, we issued 67,405 shares of our common stock to an accredited investor in connection with the exercise of two warrants at an exercise price of \$0.89 per share for aggregate proceeds of \$59,373.
- m) In May 2018, we issued 47,318 shares of our common stock to an accredited investor in exchange for the cancellation of \$234,017 of principal and accrued interest under outstanding subordinated promissory notes.
- n) In May 2018, we issued and sold 29,178 shares of our common stock to an accredited investor at \$4.79 per share for aggregate proceeds of \$139,854.
- o) In May 2018, we issued 23,558 shares of our common stock to an accredited investor upon conversion of \$112,921 of principal and accrued interest under an outstanding convertible promissory note.
- p) Between July 1, 2017 and July 1, 2020, we granted options to purchase an aggregate of 677,471 shares of common stock, with exercise prices ranging from \$2.31 to \$5.57 per share, to our employees, directors, advisors and consultants pursuant to the 2011 Plan. Since September 30, 2015, no options have been exercised.
- q) In January 2020, an accredited investor subscribed for, and we issued, 874 shares of our stock in a private placement transaction at a per share price of \$5.57. Net proceeds were approximately \$4,870. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.
- r) On June 30, 2020, we accepted a fully paid-up subscription for 11,594 shares of our stock from an accredited investor in a private placement transaction at a per share price of \$5.50. Total consideration of approximately \$63,800 for the subscription was paid into the Company as partial consideration for settlement of the 2020 Note (refer to Note 4 for information regarding early settlement of the 2020 Note). Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.
- s) On August 25, 2020, we issued 13,301 fully paidnon-assessable shares of our common stock in connection with a net settled exercise of 21,854 warrant shares with a strike price of \$2.31 per share. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.
- t) On December 28, 2020, we issued 44,143 fully paidnon-assessable shares of our common stock at the IPO price of \$10.00 per share in connection with the conversion of \$441,430 of principal and accrued interest on a note held by Flagship Consulting, Inc. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.
- u) On March 1, 2021, we issued 9,000 shares of our Common Stock in exchange for services from MDM Worldwide Solutions, Inc. Issuance costs were not material. No additional rights or options were granted to this accredited investor in connection with this issuance.

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v) In May 2021, we issued 73,496 net shares of our common stock in connection with the exercise of stock options of certain of our former directors and a current director who also serves as our Chief Executive Officer to purchase 90,414 shares of our common stock at an exercise price of \$0.38 per share and received \$34,357 upon such exercise.

The offers, sales and issuances of the securities described in Items 15(a) through 15(o) and 15(q) through 15(u) were exempt from registration under the Securities Act under Section 4(a)(2) of the Securities Act as transactions by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof. Each of the recipients of securities in these transactions was an accredited person and had adequate access, through employment, business or other relationships, to information about the Company.

The offers, sales and issuances of the securities described in Item 15(p) and 15(v) were exempt from registration under the Securities Act under either (1) Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701 or (2) Section 4(a)(2) of the Securities Act as transactions by an issuer not involving any public offering. The recipients of such securities were the registrant's employees, consultants or directors and received the securities under the 2011 Plan. The recipients of securities in each of these transactions represented their intention to acquire the securities for investment only and not with view to or for sale in connection with any distribution thereof.

Item 16. *Exhibit and Financial Statement Schedules*

(a) Exhibits.

The exhibit index attached hereto is incorporated herein by reference.

(b) Financial Statement Schedules.

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. *Undertakings*

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the U.S. Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the

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information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment 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.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) 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 any charter provision, by law 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 Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than 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 Securities Act and will be governed by the final adjudication of such issue.

(7) The undersigned registrant hereby undertakes that:

(i) 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; and

(ii) 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.

EXHIBIT INDEX

Exhibit Number	Description*	Where Located			
		Form	File Number	Exhibit Number	Filing Date
1.1**	Form of Underwriting Agreement				
3.1	Amended and Restated Certificate of Incorporation of Inhibikase Therapeutics, Inc.	8-K	001-39676	3.1	12/29/2020
3.2	Amended and Restated Bylaws of Inhibikase Therapeutics, Inc.	8-K	001-39676	3.2	12/29/2020
4.1	Specimen common stock Certificate of the Registrant	S-1	333-240036	4.1	07/23/2020
4.2	Form of Warrant to purchase common stock of the Registrant, issued to each of the members of the Scientific Advisory Board and the investor named in Schedule A thereto	S-1	333-240036	4.2	07/23/2020
4.3	Warrant, issued by Inhibikase Therapeutics, Inc. to Kubera North America, Inc., dated October 5, 2018	S-1	333-240036	4.3	07/23/2020
4.4	Warrant, issued by Inhibikase Therapeutics, Inc. to Francis E. McDaniel, dated January 1, 2019	S-1A	333-240036	4.4	09/15/2020
4.5	Warrant, issued by Inhibikase Therapeutics, Inc. to Francis E. McDaniel, dated March 31, 2020	S-1	333-240036	4.5	07/23/2020
4.6	Form of Representative's Warrant	S-1	333-240036	4.6	07/23/2020
4.7	Form of Late IPO Warrant	S-1	333-240036	4.7	07/23/2020
4.8#	Convertible Revolving Demand Promissory Note, issued by Inhibikase Therapeutics, Inc. to Flagship Consulting, Inc., dated April 3, 2018	S-1	333-240036	4.8	07/23/2020
4.9#	Second Convertible Revolving Demand Promissory 2019 Note, issued by Inhibikase Therapeutics, Inc. to Joseph Frattaroli, dated December 31, 2019	S-1	333-240036	4.9	07/23/2020
4.10	Restated Agreement to Repay Individual Loan, by and between Inhibikase Therapeutics Inc. and Milton H. Werner, Ph.D., dated June 13, 2020	S-1/A	333-240036	4.10	09/15/2020
4.11	Fifth Restatement and Amendment to Promissory Note, issued by Inhibikase Therapeutics, Inc. to McDaniel Law Firm, PC, dated June 30, 2020	S-1	333-240036	4.11	07/23/2020
4.12#	Warrant, issued by Inhibikase Therapeutics, Inc. to Flagship Consulting, Inc., dated August 25, 2020	S-1/A	333-240036	4.12	09/15/2020
4.13#	Warrant, issued by Inhibikase Therapeutics, Inc. to Flagship Consulting, Inc., dated August 25, 2020	S-1/A	333-240036	4.13	09/15/2020
4.14#	Amended and Restated Second Convertible Revolving Demand Promissory 2020 Note, issued by Inhibikase Therapeutics, Inc. to Flagship Consulting, Inc., dated August 31, 2020	S-1/A	333-240036	4.14	09/15/2020

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Exhibit Number	Description*	Where Located			
		Form	File Number	Exhibit Number	Filing Date
4.15	Agreement to Repay Individual Loan, by and between Inhibikase Therapeutics, Inc. and Milton H. Werner, dated February 5, 2020	S-1/A	333-240036	4.15	09/15/2020
4.16	Letter Agreement to Restated Agreement to Repay Individual Loan, by and between Inhibikase Therapeutics, Inc. and Milton H. Werner, dated September 11, 2020	S-1/A	333-240036	4.16	09/15/2020
4.17#	Convertible Revolving Demand Promissory Note, issued by Inhibikase Therapeutics, Inc. to Flagship Consulting Inc., dated April 3, 2018	S-1/A	333-240036	4.17	09/15/2020
4.18#	Amendment to Promissory Note by and between Inhibikase Therapeutics, Inc. and Flagship Consulting, Inc., dated October 30, 2020	S-1/A	333-240036	4.18	11/03/2020
4.19**	Form of Representative's Warrant				
5.1**	Opinion of Troutman Pepper Hamilton Sanders LLP				
10.1	License Agreement, by and between Inhibikase Therapeutics, Inc. and Emory University, dated June 8, 2010	S-1	333-240036	10.1	07/23/2020
10.2	Collaborative Research and Development Agreement, by and between Inhibikase Therapeutics, Inc. and Sphaera Pharma Pte. Ltd., dated February 29, 2012	S-1	333-240036	10.2	07/23/2020
10.3	First Amendment to Collaborative Research and Development Agreement, by and between Inhibikase Therapeutics Inc. and Sphaera Pharma Pte. Ltd., dated October 5, 2012	S-1	333-240036	10.3	07/23/2020
10.4#	2011 Equity Incentive Plan and forms of agreements thereunder	S-1	333-240036	10.4	07/23/2020
10.5#	2020 Equity Incentive Plan and forms of agreements thereunder	S-1/A	333-240036	10.5	12/04/2020
10.6#	Employment Agreement, by and between Inhibikase Therapeutics, Inc. and Milton H. Werner, Ph.D., dated April 1, 2014	S-1	333-240036	10.6	07/23/2020
10.7#	Employment Agreement, by and between Inhibikase Therapeutics, Inc. and Milton H. Werner Ph.D., effective upon the completion of the Company's Initial Public Offering	S-1	333-240036	10.7	07/23/2020
10.8#	Employment Agreement, by and between Inhibikase Therapeutics, Inc. and Joseph Frattaroli, dated October 24, 2018	S-1	333-240036	10.8	07/23/2020
10.9	Consulting Agreement, by and between Inhibikase Therapeutics Inc. and Flagship Consulting, Inc., dated April 1, 2018	S-1/A	333-240036	10.9	09/15/2020

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Exhibit Number	Description*	Where Located			
		Form	File Number	Exhibit Number	Filing Date
10.10	Form of Inhibikase Therapeutics, Inc. Directors and Officers Indemnification Agreement	S-1	333-240036	10.9	07/23/2020
10.11	Form of Inhibikase Therapeutics, Inc. Subscription Agreement	S-1	333-240036	10.10	07/23/2020
10.12	Side Letter to Subscription Agreement of Joseph Ventures Allium, LLC, dated July 19, 2018	S-1	333-240036	10.11	07/23/2020
10.13	Side Letter to Subscription Agreement of Joseph Ventures Allium, LLC, dated August 31, 2018	S-1	333-240036	10.12	07/23/2020
10.14	Side Letter to Subscription Agreement of Joseph Ventures Allium, LLC, dated June 15, 2018	S-1	333-240036	10.13	07/23/2020
10.15	Lease Agreement, dated June 5, 2020, by and between Inhibikase Therapeutics, Inc. and Regus Management Group, LLC	S-1	333-240036	10.14	07/23/2020
10.16	Form of Consulting Agreement	S-1	333-240036	10.15	07/23/2020
21.1	Subsidiaries of the Registrant	10-K	001-39676	21.1	03/31/2021
23.1**	Consent of Independent Registered Public Accounting Firm				
23.2**	Consent of Troutman Pepper Hamilton Sanders LLP (included in Exhibit 5.1 hereto)				
24.1**	Power of Attorney (included on the signature page to this Registration Statement)				
101.INS**	XBRL Instance Document				
101.SCH**	XBRL Taxonomy Extension Schema Document				
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document				

(**) Filed herewith.

(#) A contract, compensatory plan or arrangement to which a director or executive officer is a party or in which one or more directors or executive officers are eligible to participate.

(*) Certain of the agreements filed as exhibits contain representations and warranties made by the parties thereto. The assertions embodied in such representations and warranties are not necessarily assertions of fact, but a mechanism for the parties to allocate risk. Accordingly, investors should not rely on the representations and warranties as characterizations of the actual state of facts or for any other purpose at the time they were made or otherwise.

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 Atlanta, State of Georgia, on the 11th day of June, 2021.

INHIBIKASE THERAPEUTICS, INC.

By: /s/ Milton H. Werner
Milton H. Werner, Ph.D.
President and Chief Executive Officer

KNOW ALL MEN BY THESE PRESENTS, that each officer and director of Inhibikase Therapeutics, Inc. whose signature appears below constitutes and appoints Milton H. Werner, Ph.D. and Joseph Frattaroli and each of them, his true and lawful attorney-in-fact and agent, with full power of substitution and revocation, for him and in his name, place and stead, in any and all capacities, to execute any or all amendments including any post-effective amendments and supplements to this Registration Statement, and any additional Registration Statement filed pursuant to Rule 462(b), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his 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 and on the dates indicated.

Signature	Title	Date
<u>/s/ Milton H. Werner</u> Milton H. Werner, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	June 11, 2021
<u>/s/ Joseph Frattaroli</u> Joseph Frattaroli	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 11, 2021
<u>/s/ Dennis Berman</u> Dennis Berman	Director	June 11, 2021
<u>/s/ Roy Freeman</u> Roy Freeman, MD	Director	June 11, 2021
<u>/s/ Paul Grint</u> Paul Grint, MD	Director	June 11, 2021
<u>/s/ Elizabeth O'Farrell</u> Elizabeth O'Farrell	Director	June 11, 2021

UNDERWRITING AGREEMENT

between

INHIBIKASE THERAPEUTICS, INC

and

THINKEQUITY,

A DIVISION OF FORDHAM FINANCIAL MANAGEMENT, INC.

as Representative of the Several Underwriters

INHIBIKASE THERAPEUTICS, INC.

UNDERWRITING AGREEMENT

New York, New York
[], 2021

ThinkEquity,
A Division of Fordham Financial Management, Inc.
As Representative of the several Underwriters named on Schedule 1 attached hereto
17 State Street, 22nd Fl.
New York, New York 10004

Ladies and Gentlemen:

The undersigned, Inhibikase Therapeutics, Inc., a corporation formed under the laws of the State of Delaware (the “**Company**”), hereby confirms its agreement (this “**Agreement**”) with ThinkEquity, a division of Fordham Financial Management, Inc., (hereinafter referred to as “**you**” (including its correlatives) or the “**Representative**”) and with the other underwriters named on Schedule 1 hereto for which the Representative is acting as representative (the Representative and such other underwriters being collectively called the “**Underwriters**” or, individually, an “**Underwriter**”) as follows:

1. Purchase and Sale of Shares.

1.1 Firm Shares.

1.1.1. Nature and Purchase of Firm Shares.

(i) On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the several Underwriters, an aggregate of [•] shares (the “**Firm Shares**”) of the Company’s common stock, par value \$0.001 per share (the “**Common Stock**”).

(ii) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Firm Shares set forth opposite their respective names on Schedule 1 attached hereto and made a part hereof at a purchase price of \$[•] per share (93% of the per Firm Share offering price, before expenses). The Firm Shares are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (as defined in Section 2.1.1 hereof).

1.1.2. Shares Payment and Delivery.

(i) Delivery and payment for the Firm Shares shall be made at 10:00 a.m., Eastern time, on the second (2^d) Business Day following the effective date (the “**Effective Date**”) of the Registration Statement (as defined in Section 2.1.1 below) (or the third (3^d) Business Day following the Effective Date if the Registration Statement is declared effective after 4:01 p.m., Eastern time) or at such earlier time as shall be agreed upon by the Representative and the Company, at the offices of Gracin & Marlow, LLP, The Chrysler Building, 405 Lexington Avenue, 26th Floor, New York, New York 10174 (“**Representative Counsel**”), or at such other place (or remotely by facsimile or other electronic transmission) as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Firm Shares is called the “**Closing Date**.” (ii) Payment for the Firm Shares shall be made on the Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery of the certificates (in form and substance satisfactory to the Underwriters) representing the Firm Shares (or through the facilities of

the Depository Trust Company (“DTC”)) for the account of the Underwriters. The Firm Shares shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Closing Date. The Company shall not be obligated to sell or deliver the Firm Shares except upon tender of payment by the Representative for all of the Firm Shares. The term “Business Day” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York are generally open for use by customers on such day.

1.2 Over-allotment Option.

1.2.1. Option Shares. For the purposes of covering any over-allotments in connection with the distribution and sale of the Firm Shares, the Company hereby grants to the Underwriters an option to purchase up to [•] additional shares of Common Stock, representing fifteen percent (15%) of the Firm Shares sold in the offering, from the Company (the “**Over-allotment Option**”). Such [•] additional shares of Common Stock, the net proceeds of which will be deposited with the Company’s account, are hereinafter referred to as “Option Shares.” The purchase price to be paid per Option Share shall be equal to the price per Firm Share set forth in Section 1.1.1 hereof. The Firm Shares and the Option Shares are hereinafter referred to together as the “**Public Securities**.” The offering and sale of the Public Securities is hereinafter referred to as the “**Offering**.”

1.2.2. Exercise of Option. The Over-allotment Option granted pursuant to Section 1.2.1 hereof may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Shares within 45 days after the Effective Date. The Underwriters shall not be under any obligation to purchase any Option Shares prior to the exercise of the Over-allotment Option. The Over-allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Shares to be purchased and the date and time for delivery of and payment for the Option Shares (the “**Option Closing Date**”), which shall not be later than one (1) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of Representative Counsel or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Shares does not occur on the Closing Date, the Option Closing Date will be as set forth in the notice. Upon exercise of the Over-allotment Option with respect to all or any portion of the Option Shares, subject to the terms and conditions set forth herein, (i) the Company shall become obligated to sell to the Underwriters the number of Option Shares specified in such notice and (ii) each of the Underwriters, acting severally and not jointly, shall purchase that portion of the total number of Option Shares then being purchased as set forth in Schedule 1 opposite the name of such Underwriter.

1.2.3. Payment and Delivery. Payment for the Option Shares shall be made on the Option Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery to you of certificates (in form and substance satisfactory to the Underwriters) representing the Option Shares (or through the facilities of DTC) for the account of the Underwriters. The Option Shares shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least one (1) full Business Day prior to the Option Closing Date. The Company shall not be obligated to sell or deliver the Option Shares except upon tender of payment by the Representative for applicable Option Shares. The Option Closing Date may be simultaneous with, but not earlier than, the Closing Date; and in the event that such time and date are simultaneous with the Closing Date, the term “**Closing Date**” shall refer to the time and date of delivery of the Firm Shares and Option Shares.

1.3 Representative's Warrants.

1.3.1. Purchase Warrants. The Company hereby agrees to issue and sell to the Representative (and/or its designees) on the Closing Date an option (“**Representative's Warrant**”) for the purchase of an aggregate of [•] shares of Common Stock, representing 5% of the Firm Shares, for an aggregate purchase price of \$100.00. The Representative's Warrant Agreement, in the form attached hereto as Exhibit A (the “**Representative's Warrant Agreement**”), shall be exercisable, in whole or in part, beginning on the date that is one (1) year after the commencement of sales of the Public Securities issued in connection with this Offering and expiring on the fifth (5th) year anniversary of the commencement of sales of the Public Securities issued in connection with this Offering at an initial exercise price per share of Common Stock of \$[•], which is equal to 125% of the initial public offering price of the Firm Shares. The Representative's Warrant Agreement and the shares of Common Stock issuable upon exercise thereof are hereinafter referred to together as the “**Representative's Securities**.” The Representative understands and agrees that there are significant restrictions pursuant to FINRA Rule 5110 against transferring the Representative's Warrant Agreement and the underlying shares of Common Stock for a period of one hundred eighty (180) days (with the understanding that the Representative has agreed to extend this period to one (1) year) immediately following the commencement of sales of the Public Securities issued in connection with this Offering and by its acceptance thereof shall agree that it will not sell, transfer, assign, pledge or hypothecate the Representative's Warrant Agreement, or any portion thereof, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities for a period of one hundred eighty (180) days (with the understanding that the Representative has agreed to extend this period to one (1) year) immediately following the commencement of sales of the Public Securities issued in connection with this Offering to anyone other than (i) an Underwriter or a selected dealer in connection with the Offering, or (ii) a bona fide officer or partner of the Representative or of any such Underwriter or selected dealer; and only if any such transferee agrees to the foregoing lock-up restrictions.

1.3.2. Delivery. Delivery of the Representative's Warrant Agreement shall be made on the Closing Date and shall be issued in the name or names and in such authorized denominations as the Representative may request.

2. Representations and Warranties of the Company. The Company represents and warrants to the Underwriters as of the Applicable Time (as defined below), as of the Closing Date and as of the Option Closing Date, if any, as follows:

2.1 Filing of Registration Statement

2.1.1. Pursuant to the Securities Act. The Company has filed with the U.S. Securities and Exchange Commission (the “**Commission**”) a registration statement, and an amendment or amendments thereto, on Form S-1 (File No. 333-[]), including any related prospectus or prospectuses, for the registration of the Public Securities and the Representative's Securities under the Securities Act of 1933, as amended (the “**Securities Act**”), which registration statement and amendment or amendments have been prepared by the Company in all material respects in conformity with the requirements of the Securities Act and the rules and regulations of the Commission under the Securities Act (the “**Securities Act Regulations**”) and will contain all material statements that are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement became effective (including the Preliminary Prospectus included in the registration statement, financial

statements, schedules, exhibits and all other documents filed as a part thereof or incorporated therein and all information deemed to be a part thereof as of the Effective Date pursuant to paragraph (b) of Rule 430A of the Securities Act Regulations (the “**Rule 430A Information**”), is referred to herein as the “Registration Statement.” If the Company files any registration statement pursuant to Rule 462(b) of the Securities Act Regulations, then after such filing, the term “Registration Statement” shall include such registration statement filed pursuant to Rule 462(b). The Registration Statement has been declared effective by the Commission on the date hereof.

Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a “**Preliminary Prospectus**.” The Preliminary Prospectus, subject to completion, dated June [], 2021, that was included in the Registration Statement immediately prior to the Applicable Time is hereinafter called the “Pricing Prospectus.” The final prospectus in the form first furnished to the Underwriters for use in the Offering is hereinafter called the “Prospectus.” Any reference to the “most recent Preliminary Prospectus” shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement.

“**Applicable Time**” means [:00] [a.m.][p.m.], Eastern time, on the date of this Agreement.

“**Issuer Free Writing Prospectus**” means any “issuer free writing prospectus,” as defined in Rule 433 of the Securities Act Regulations (“**Rule 433**”), including without limitation any “free writing prospectus” (as defined in Rule 405 of the Securities Act Regulations) relating to the Public Securities that is (i) required to be filed with the Commission by the Company, (ii) a “road show that is a written communication” within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Public Securities or of the Offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g).

“**Issuer General Use Free Writing Prospectus**” means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a “*bona fide* electronic road show,” as defined in Rule 433 (the “**Bona Fide Electronic Road Show**”)), as evidenced by its being specified in Schedule 2-B hereto.

“**Issuer Limited Use Free Writing Prospectus**” means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

“**Pricing Disclosure Package**” means any Issuer General Use Free Writing Prospectus issued at or prior to the Applicable Time, the Pricing Prospectus and the information included on Schedule 2-A hereto, all considered together.

2.1.2. Pursuant to the Exchange Act. The Company has filed with the Commission a Form 8-A (File Number 000-39676) providing for the registration pursuant to Section 12(b) under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), of the shares of Common Stock. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the shares of Common Stock under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration.

2.2 Stock Exchange Listing. The Common Stock is listed on the NASDAQ Capital Market (the “**Exchange**”), and the Company has taken no action designed to, or likely to have the effect of, delisting the shares of Common Stock or the shares of Common Stock underlying the Representative’s Warrants from the Exchange, nor has the Company received any notification that the Exchange is contemplating terminating such listing. The Company has complied in all material respects with the applicable requirements of Nasdaq for maintenance of inclusion of the Common Stock thereon. A Listing of Additional Shares Notification Form (the “**Additional Shares Notification Form**”) for the Public Securities and the shares of Common Stock underlying the Representative’s Warrants Shares was submitted to the Exchange prior to the date of this Agreement and, as of the date of this Agreement, the Company has received confirmation from the Exchange that the review of the Additional Shares Notification Form has been completed. As of the Closing Date no stockholder or other approval is required pursuant to Nasdaq Listing Rule 5635(d).

2.3 No Stop Orders, etc. Neither the Commission nor, to the Company’s knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus or the Prospectus or has instituted or, to the Company’s knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) from the Commission for additional information.

2.4 Disclosures in Registration Statement.

2.4.1. Compliance with Securities Act and 10b-5 Representation.

(i) Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus, including the prospectus filed as part of the Registration Statement as originally filed or as part of any amendment or supplement thereto, and the Prospectus, at the time each was filed with the Commission, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus delivered to the Underwriters for use in connection with this Offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(ii) Neither the Registration Statement nor any amendment thereto, at its effective time, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided however, that this representation and warranty shall not apply to the Underwriters Information (as defined below).

(iii) The Pricing Disclosure Package, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), did not, does not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Limited Use Free Writing Prospectus hereto does not conflict with the information contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, and each such Issuer Limited Use Free Writing Prospectus, as supplemented by and taken together with the Pricing Prospectus as of the Applicable Time, did not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by the Representative expressly for use in the Registration Statement, the Pricing Prospectus or the Prospectus or any amendment thereof or supplement thereto. The

parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of the following disclosure contained in the “Underwriting” section of the Prospectus: the table in the first paragraph under the caption “Underwriting”, the first sentence under the heading “Underwriting–Discounts and Commissions” and the first three paragraphs under the caption “Underwriting–Price Stabilization, Short-Positions and Penalty Bids” (the “**Underwriters Information**”); and

(iv) Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing Date or at any Option Closing Date, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to the Underwriters’ Information.

2.4.2. Disclosure of Agreements. The agreements and documents described in the Registration Statement, the Pricing Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the Securities Act Regulations to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus, or (ii) is material to the Company’s business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company’s knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors’ rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company, nor, to the Company’s knowledge, any other party is in default thereunder and, to the Company’s knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the Company’s knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, ordinance, judgment, order or decree of any governmental or regulatory agency, body, authority or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses (each, a “**Governmental Entity**”), including, without limitation, those relating to environmental laws and regulations. The Company has no subsidiaries and has no other interest, nominal or beneficial, direct or indirect, in any other corporation, joint venture or other business entity.

2.4.3. Prior Securities Transactions. No securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by or under common control with the Company, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Preliminary Prospectus.

2.4.4. Regulations. The disclosures in the Registration Statement, the Pricing Disclosure Package and the Prospectus concerning the effects of federal, state, local and all foreign regulation on the Offering and the Company’s business as currently contemplated are accurate, correct and complete in all material respects and no other such regulations are required to be disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus which are not so disclosed.

2.4.5. No Other Distribution of Offering Materials. The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the Offering other than any Preliminary Prospectus, the Disclosure Package, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 3.2 below.

2.5 Changes After Dates in Registration Statement.

2.5.1. No Material Adverse Change. Since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except as otherwise specifically stated therein: (i) there has been no material adverse change (including in the financial position or results of operations of the Company) or development in the business of the Company which, singularly or in the aggregate) would involve a material adverse change or prospective material adverse change, whether or not arising from transactions in the ordinary course of business, in or affecting the business, general affairs, management, condition (financial or otherwise), results of operations, stockholders' equity, business, assets, properties or prospects of the Company, taken as a whole (a "**Material Adverse Change**"); (ii) there have been no material transactions entered into by the Company, other than as contemplated pursuant to this Agreement; (iii) no officer or director of the Company has resigned from any position with the Company; and (iv) the Company has not sustained any material loss or interference with its business or properties from fire, explosion, flood, earthquake, hurricane, accident or other calamity.

2.5.2. Recent Securities Transactions, etc. Subsequent to the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and except as may otherwise be indicated or contemplated herein or disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

2.6 Independent Accountants. To the knowledge of the Company, CohnReznick LLP (the "**Auditor**"), whose report is filed with the Commission as part of the Registration Statement, the Pricing Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Securities Act Regulations and the Public Company Accounting Oversight Board. The Auditor has not, during the periods covered by the financial statements included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

2.7 Financial Statements, etc. The financial statements, including the notes thereto and supporting schedules included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, fairly present in all material respects the financial position and the results of operations of the Company at the dates and for the periods to which they apply; and such financial statements have been prepared in conformity with U.S. generally accepted accounting principles ("**GAAP**"), consistently applied throughout the periods involved (provided that unaudited interim financial statements are subject to year-end audit adjustments that are not expected to be material in the aggregate and do not contain all footnotes required by GAAP); and the supporting schedules included in the Registration Statement present fairly in all material respects the information required to be stated therein. Except as included therein, no historical or pro forma financial statements are required to be included in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Securities Act or the Securities Act Regulations. The pro forma and pro forma as adjusted financial information and the related notes, if any, included in the Registration Statement, the Pricing Disclosure Package and the Prospectus have been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Securities Act Regulations and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and

circumstances referred to therein. All disclosures contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of the Commission), if any, comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K of the Securities Act, to the extent applicable. Each of the Registration Statement, the Pricing Disclosure Package and the Prospectus discloses all material off-balance sheet transactions, arrangements, obligations (including contingent obligations), and other relationships of the Company with unconsolidated entities or other persons that may have a material current or future effect on the Company’s financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenues or expenses. Since the date of the latest audited financial statements included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock (c) there has not been any change in the capital stock of the Company, or, other than in the course of business, any grants under any stock compensation plan, and (d) there has not been any material adverse change in the Company’s long-term or short-term debt.

2.8 Authorized Capital; Options, etc. The Company had, at the date or dates indicated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the duly authorized, issued and outstanding capitalization as set forth therein. Based on the assumptions stated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company will have on the Closing Date the adjusted stock capitalization set forth therein. Except as set forth in, or contemplated by, the Registration Statement, the Pricing Disclosure Package and the Prospectus, on the Effective Date, as of the Applicable Time and on the Closing Date and any Option Closing Date, there will be no stock options, warrants, or other rights to purchase or otherwise acquire any authorized, but unissued shares of Common Stock of the Company or any security convertible or exercisable into shares of Common Stock of the Company, or any contracts or commitments to issue or sell shares of Common Stock or any such options, warrants, rights or convertible securities.

2.9 Valid Issuance of Securities, etc.

2.9.1. Outstanding Securities. All issued and outstanding securities of the Company issued prior to the transactions contemplated by this Agreement have been duly authorized and validly issued and are fully paid and non-assessable; the holders thereof have no rights of rescission or similar rights with respect thereto or put rights, and are not subject to personal liability by reason of being such holders; and none of such securities were issued in violation of the preemptive rights, rights of first refusal or rights of participation of any holders of any security of the Company or similar contractual rights granted by the Company. The authorized shares of Common Stock conform in all material respects to all statements relating thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The offers and sales of the outstanding shares of Common Stock were at all relevant times either registered under the Securities Act and the applicable state securities or “blue sky” laws or, based in part on the representations and warranties of the purchasers of such Shares, exempt from such registration requirements.

2.9.2. Securities Sold Pursuant to this Agreement. The Public Securities have been duly authorized for issuance and sale and, when issued and paid for pursuant to the terms of this Agreement, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; the Public Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company except as have been validly waived or complied with; and all corporate action required to be taken for the authorization, issuance and sale of the Public Securities has been duly and validly taken.

The Public Securities and Representative's Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The Representative's Securities have been duly authorized for issuance and sale and, when issued and paid for pursuant to the terms of the Representative's Warrant Agreement will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders and all corporate action required to be taken for the authorization, issuance and sale of the Representative's Warrant Agreement has been duly and validly taken; the shares of Common Stock issuable upon exercise of the Representative's Warrant have been duly authorized and reserved for issuance by all necessary corporate action on the part of the Company and when paid for and issued in accordance with the Representative's Warrant and the Representative's Warrant Agreement, such shares of Common Stock will be validly issued, fully paid and non-assessable; the holders of the Representative's Securities are not and will not be subject to personal liability by reason of being such holders; and such shares of Common Stock are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company.

2.10 Registration Rights of Third Parties. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no holders of any securities of the Company or any rights exercisable for or convertible or exchangeable into securities of the Company have the right to require the Company to register any such securities of the Company under the Securities Act or to include any such securities in a registration statement to be filed by the Company.

2.11 Validity and Binding Effect of Agreements. This Agreement and the Representative's Warrant Agreement have been duly and validly authorized by the Company, and, when executed and delivered, will constitute, the valid and binding agreements of the Company, enforceable against the Company in accordance with their respective terms, except: (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

2.12 No Conflicts, etc. The execution, delivery and performance by the Company of this Agreement, the Representative's Warrant Agreement and all ancillary documents, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms hereof and thereof do not and will not, with or without the giving of notice or the lapse of time or both: (i) result in a material breach of, or conflict with any of the terms and provisions of, or constitute a material default under, or result in the creation, modification, termination or imposition of any lien, charge, mortgage, pledge, security interest, claim, equity, trust or other encumbrance, preferential arrangement or restriction of any kind whatsoever or encumbrance upon any portion of any property or assets of the Company pursuant to the terms of any indenture, mortgage, deed of trust, note, lease, loan agreement or any other agreement or instrument, license or permit to which the Company is a party or as to which any property of the Company is a party, except as set forth in the Registration Statement, Pricing disclosure Package and Prospectus; (ii) result in any violation of the provisions of the Company's Amended and Restated Certificate of Incorporation (as the same may be amended or restated from time to time, the "**Charter**") or the Amended and Restated Bylaws of the Company (as the same may be amended or restated from time to time)(the "**Bylaws**"); or (iii) violate any existing applicable law, rule, regulation, judgment, order or decree of any Governmental Entity as of the date hereof (including, without limitation, those promulgated by the by the U.S. Food and Drug Administration ("**FDA**") of the U.S. Department of Health and Human Services, the Centers for Medicare & Medicaid Services ("**CMA**"), or by any foreign, federal, state or local regulatory authority performing functions similar to those performed by the FDA), except, in the case of clauses (i) and (iii), for such defaults, breaches, or violations that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change.

2.13 No Defaults; Violations. No material default exists in the due performance and observance of any term, covenant or condition of any material license, contract, indenture, mortgage, deed of trust, note, loan or credit agreement, or any other agreement or instrument evidencing an obligation for borrowed money, or any other material agreement or instrument to which the Company is a party or by which the Company may be bound or to which any of the properties or assets of the Company is subject. The Company is not (i) in violation of any term or provision of its Charter or Bylaws, or (ii) in violation of any franchise, license, permit, applicable law, rule, regulation, judgment, order or decree of any Governmental Entity, except, in the case of clause (i), for such defaults, breaches, or violations that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change.

2.14 Corporate Power; Licenses; Consents.

2.14.1. Conduct of Business. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, each of the Company has all requisite corporate power and authority, and has all necessary consents, authorizations, approvals, registrations, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date hereof to conduct its business purpose as described in the Registration Statement, the Disclosure Package and the Prospectus, except where such failure to have such consents, authorizations, approvals, registrations, orders, license, certificates and permit would not reasonably be expected to result in a Material Adverse Change.

2.14.2. Transactions Contemplated Herein. The Company has all corporate power and authority to enter into this Agreement and to carry out the provisions and conditions hereof, and all consents, authorizations, approvals, registrations and orders required in connection therewith have been obtained. No consent, authorization or order of, and no filing with, any court, government agency or other body is required for the valid issuance, sale and delivery of the Public Securities and the consummation of the transactions and agreements contemplated by this Agreement and the Representative's Warrant Agreement and as contemplated by the Registration Statement, the Pricing Disclosure Package and the Prospectus, except with respect to applicable federal and state securities laws and the rules and regulations of the Financial Industry Regulatory Authority, Inc. ("FINRA") and inclusion of the Public Securities and shares of Common Stock underlying the Representative's Warrants on Nasdaq.

2.15 D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires (the "Questionnaires") completed by each of the Company's directors and officers immediately prior to the Offering (the "Insiders") as supplemented by all information concerning the Company's directors, officers and principal stockholders as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, as well as in the Lock-Up Agreement (as defined in Section 2.24 below), provided to the Underwriters, is true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in the Questionnaires to become materially inaccurate and incorrect.

2.16 Litigation; Governmental Proceedings. There is no material action, suit, proceeding, inquiry, arbitration, investigation, litigation or governmental proceeding pending or, to the Company's knowledge, threatened against, or involving the Company, or, to the Company's knowledge, any executive officer or director which has not been disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus or in connection with the Company's listing application for the listing of the Public Securities on the Exchange, and which if resolved adversely to the Company would result in a Material Adverse Change or otherwise affect the Company's ability to consummate the Offering.

2.17 Good Standing. The Company has been duly incorporated and validly existing as a corporation and is in good standing under the laws of the state of its organization as of the date hereof, and is duly qualified to do business and is in good standing in each other jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify, singularly or in the aggregate, would not have or reasonably be expected to result in a Material Adverse Change.

2.18 Insurance. The Company carries or is entitled to the benefits of insurance, with, to the Company's knowledge, reputable insurers, in such amounts and covering such risks which the Company believes are adequate, including but not limited to, directors and officers insurance coverage at least equal to \$10 million. As of the date hereof, the Company has no reason to believe that it will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Change.

2.19 Transactions Affecting Disclosure to FINRA.

2.19.1. Finder's Fees. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no claims, payments, arrangements, agreements or understandings relating to the payment of a finder's, consulting or origination fee by the Company or any Insider with respect to the sale of the Public Securities hereunder or any other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by FINRA.

2.19.2. Payments Within Twelve (12) Months. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the twelve (12) months prior to the Effective Date, other than the payment to the Underwriters as provided hereunder in connection with the Offering.

2.19.3. Use of Proceeds. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

2.19.4. FINRA Affiliation. To the knowledge of the Company, there is no (i) officer or director of the Company, (ii) beneficial owner of 5% or more of any class of the Company's securities or (iii) beneficial owner of the Company's unregistered equity securities which were acquired during the 180-day period immediately preceding the filing of the Registration Statement that is an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA). Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company (i) does not have any material lending or other relationship with any bank or lending affiliate of any Underwriter and (ii) does not intend to use any of the proceeds from the sale of the Public Securities to repay any outstanding debt owed to any affiliate of any Underwriter.

2.19.5. Information. All information provided by the Company and to the Company's knowledge all the information provided by its officers and directors in their FINRA questionnaire to Representative Counsel specifically for use by Representative Counsel in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

2.20 Foreign Corrupt Practices Act. None of the Company or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any other person acting on behalf of the Company, has violated, and its participation in the offering will not violate, the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the "FCPA"), or any applicable anti-bribery, anti-money laundering and anti-corruption laws or directly or indirectly, given or agreed to give any unlawful money, gift or similar benefit (other than legal price concessions to customers in the ordinary course of business) to any customer, supplier, employee or agent of a customer or supplier, or official or employee of any governmental agency or instrumentality of any government (domestic or foreign) or any political party or candidate for office (domestic or foreign) or other person who was, is, or may be in a position to help or hinder the business of the Company (or assist it in connection with any actual or proposed transaction). The Company has conducted its businesses in compliance with the FCPA and has instituted and maintains policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance with the FCPA and all applicable anti-bribery, anti-money laundering and anti-corruption laws.

2.21 Compliance with OFAC. None of the Company or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any other person acting on behalf of the Company, is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("OFAC"), and the Company will not, directly or indirectly, use the proceeds of the Offering hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

2.22 Forward-Looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the Registration Statement, Disclosure Package or Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

2.23 Money Laundering Laws. The operations of the Company are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

2.24 Officers' Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to you or to Representative Counsel shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

2.25 Lock-Up Agreements, Schedule 3 hereto contains a complete and accurate list of the Company's executive officers and directors and certain owners of the Company's outstanding shares of Common Stock (or securities convertible or exercisable into shares of Common Stock) who will be subject to the Lock-Up Agreement (as defined below) (collectively, the "Lock-Up Parties"). The Company has caused each of the Lock-Up Parties to deliver to the Representative an executed Lock-Up Agreement, in the form attached hereto as Exhibit B (the "Lock-Up Agreement"), prior to the execution of this Agreement.

2.26 Related Party Transactions. There are no business relationships or related party transactions involving the Company or any other person required to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that have not been described as required.

2.27 No Relationships with Customers and Suppliers. No relationship, direct or indirect, exists between or among the Company on the one hand, and the directors, officers, 5% or greater stockholders, customers or suppliers of the Company or any of the Company's or any Subsidiary's affiliates on the other hand, which is required to be described in the Pricing Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

2.28 No Unconsolidated Entities. There are no transactions, arrangements or other relationships between and/or among the Company and any of its affiliates (as such term is defined in Rule 405 of the Securities Act) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's liquidity or the availability of or requirements for its capital resources required to be described in the Pricing Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required

2.29 Board of Directors. The Board of Directors of the Company is comprised of the persons set forth under the heading of the Pricing Prospectus and the Prospectus captioned "Management." The qualifications of the persons serving as board members and the overall composition of the board comply with the Exchange Act, the Exchange Act Regulations, the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder (the "**Sarbanes-Oxley Act**") applicable to the Company and the listing rules of the Exchange. At least one member of the Audit Committee of the Board of Directors of the Company qualifies as an "audit committee financial expert," as such term is defined under Regulation S-K and the listing rules of the Exchange. In addition, at least a majority of the persons serving on the Board of Directors qualify as "independent," as defined under the listing rules of the Exchange.

2.30 Sarbanes-Oxley Compliance.

2.30.1. Disclosure Controls. The Company has developed and currently maintains disclosure controls and procedures that will comply with Rule 13a-15 or 15d-15 under the Exchange Act Regulations, applicable to it, and, except as described in the Registration Statement, the Pricing Disclosure Package or Prospectus, such controls and procedures are effective as of the date hereof to provide reasonable assurance that all material information concerning the Company will be made known on a timely basis to the individuals responsible for the preparation of the Company's Exchange Act filings and other public disclosure documents.

2.30.2. Compliance. The Company is, or at the Applicable Time and on the Closing Date will be, in material compliance with the provisions of the Sarbanes-Oxley Act applicable to it, and has implemented or will implement such programs and taken reasonable steps to ensure the Company's future compliance (not later than the relevant statutory and regulatory deadlines therefor) with all of the material provisions of the Sarbanes-Oxley Act (it being understood that this subsection shall not require the Company to comply with Section 404 of the Sarbanes-Oxley Act as of an earlier date than it would otherwise be required to so comply under applicable law).

2.30.3. Accounting Controls. The Company maintains systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act Regulations) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of

financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company is not aware of any material weaknesses in its internal controls. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are known to the Company's management and that have adversely affected or are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and (ii) any fraud known to the Company's management, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

2.31 No Investment Company Status. The Company is not and, after giving effect to the Offering and the application of the proceeds thereof as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be, required to register as an "investment company," as defined in the Investment Company Act of 1940, as amended.

2.32 No Labor Disputes. No labor dispute with the employees of the Company or its Subsidiary exists or, to the knowledge of the Company, is imminent.

2.33 Intellectual Property Rights. The Company and its Subsidiary owns or possesses or has valid rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets and similar rights ("**Intellectual Property Rights**") necessary for the conduct of the business of the Company as currently carried on and as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. To the knowledge of the Company, no action or use by the Company necessary for the conduct of its business as currently carried on and as described in the Registration Statement and the Prospectus will involve or give rise to any infringement of, or license or similar fees for, any Intellectual Property Rights of others, except as described in the Registration Statement and the Prospectus with respect to the payment of certain royalties. The Company has not received any notice alleging any such infringement, fee or conflict with asserted Intellectual Property Rights of others. Except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any of the Intellectual Property Rights owned by the Company or its Subsidiary; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the rights of the Company in or to any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim, that would, individually or in the aggregate, together with any other claims in this Section 2.33, reasonably be expected to result in a Material Adverse Change; (C) the Intellectual Property Rights owned by the Company and, to the knowledge of the Company or its Subsidiary, the Intellectual Property Rights licensed to the Company have not been adjudged by a court of competent jurisdiction invalid or unenforceable, in whole or in part, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.33, reasonably be expected to result in a Material Adverse Change; (D) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property Rights or other

proprietary rights of others, the Company has not received any written notice of such claim and the Company is unaware of any other facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.33, reasonably be expected to result in a Material Adverse Change; and (E) to the Company's knowledge, no employee of the Company is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company, or actions undertaken by the employee while employed with the Company or its Subsidiary and could reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change. To the Company's knowledge, all material technical information developed by and belonging to the Company or its Subsidiary which has not been patented or disclosed in a patent application has been kept confidential. The Company is not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property Rights of any other person or entity that are required to be set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus other than those described therein. The Registration Statement, the Pricing Disclosure Package and the Prospectus contain in all material respects the same description of the matters set forth in the preceding sentence. None of the technology employed by the Company has been obtained or is being used by the Company in violation of any contractual obligation binding on the Company or, to the Company's knowledge, any of its officers, directors or employees, or otherwise in violation of the rights of any persons.

To the Company's knowledge, all licenses for the use of the Intellectual Property described in the Registration Statement, the Pricing Disclosure Package and the Prospectus are in full force and effect in all material respects and are enforceable by the Company and, to the Company's knowledge, the other parties thereto, in accordance with their terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company has, and to the Company's knowledge, no other party is in default thereunder and no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. In addition, the Company has not received notice (whether oral or written) of any breach or potential breach of any license for the use of the Intellectual Property described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.34 Taxes. The Company has filed all U.S. federal, state, local and foreign income tax returns, franchise tax returns and all other material returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof. The Company has paid all taxes (as hereinafter defined) shown as due on such returns that were filed and has paid all taxes imposed on or assessed against the Company except where the failure to do so would not reasonably be expected to have a Material Adverse Effect. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid income or other taxes in any material amount, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. Except as disclosed in writing to the Underwriters, (i) no issues have been raised (whether written or, to the knowledge of the Company, oral) (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given (whether written or, to the knowledge of the Company, oral) by or requested (whether written or, to the knowledge of the Company, oral) from the Company. The term "taxes" means all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use,

ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term “returns” means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

2.35 ERISA Compliance. The Company and any “employee benefit plan” (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, “**ERISA**”)) established or maintained by the Company or its “ERISA Affiliates” (as defined below) are in compliance in all material respects with ERISA. “ERISA Affiliate” means, with respect to the Company, any member of any group of organizations described in Sections 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the “Code”) of which the Company is a member. No “reportable event” (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any “employee benefit plan” subject to Title IV of ERISA established or maintained by the Company or any of its ERISA Affiliates. No “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates, if such “employee benefit plan” were terminated, would have any “amount of unfunded benefit liabilities” (as defined under ERISA). None of the Company nor any of its ERISA Affiliates has incurred or reasonably expects to incur any material liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the knowledge of the Company, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

2.36 Compliance with Laws. The Company: (A) is and at all times has been in compliance with all statutes, rules, regulations, ordinances, judgments, orders and decrees of all Governmental Entities applicable to the Company, including, but not limited to, whether directly or through a third party, the ownership, testing, development, manufacture, use, storage, import, export or disposal of any product manufactured by or on behalf of or distributed by or on behalf of the Company (“**Applicable Laws**”), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change; (B) has not received any warning letter, untitled letter or other correspondence or notice from any other Governmental Entity alleging or asserting noncompliance with any Applicable Laws or any licenses, consents, certificates, approvals, clearances, authorizations, permits, orders and supplements or amendments thereto required by any such Applicable Laws (“**Authorizations**”); (C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (D) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, inquiry, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received notice that any Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such Governmental Entity considering such action; (F) has filed, obtained, maintained or submitted all material reports, documents, forms, filings, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (G) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, “dear doctor” letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company’s knowledge, no third party has initiated, conducted or intends to initiate any such notice or action.

2.37 Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the time of effectiveness of the Registration Statement and any amendment thereto, at the earliest time thereafter that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) of the Securities Act Regulations) of the Public Securities and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405, without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

2.38 Environmental Laws. The Company is in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses (“**Environmental Laws**”), except where the failure to comply would not, singularly or in the aggregate, result in a Material Adverse Change. There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company (or, to the Company’s knowledge, any other entity for whose acts or omissions the Company is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company has knowledge.

2.39 Real Property. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company taken as a whole, in each case free and clear of all liens, encumbrances, security interests, claims and defects that do not, singly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and all of the leases and subleases material to the business of the Company, considered as one enterprise, and under which the Company holds properties described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, are in full force and effect, and the Company has not received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company to the continued possession of the leased or subleased premises under any such lease or sublease.

2.40 Reserved.

2.41 Loans to Directors or Officers. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company to or for the benefit of any of the officers or directors of the Company, its Subsidiaries or any of their respective family members, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.42 Smaller Reporting Company. As of the time of filing of the Registration Statement, the Company was a “smaller reporting company,” as defined in Rule 12b-2 of the Exchange Act Regulations.

2.43 Industry Data. The statistical and market-related data included in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources.

2.44 Regulatory Permits. The Company possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities, including, without limitation, those administered by the FDA, the CMA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA or CMS necessary to conduct their respective businesses as described in the Registration Statement, the Pricing Disclosure Package or the Prospectus, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (each, a "**Material Permit**"), and the Company has not received any notice of proceedings relating to the revocation or modification of any Material Permit. The disclosures in the Registration Statement concerning the effects of federal, state, local and all foreign regulation on the Company's business as currently contemplated are correct in all material respects.

2.45 Regulatory. All preclinical and clinical studies conducted by or on behalf of or sponsored by the Company or any subsidiaries that are material to the Company and its Subsidiaries, taken as a whole, are or have been adequately described in the Registration Statement, the Pricing Disclosure Package and the Prospectus in all material respects. The clinical and preclinical studies conducted by or on behalf of or sponsored by the Company and its Subsidiaries that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus were and, if still ongoing, are being conducted in material compliance with all laws and regulations applicable thereto in the jurisdictions in which they are being conducted and standard medical and scientific research protocols, procedures, and controls. The descriptions in the Registration Statement, the Pricing Disclosure Package and the Prospectus of the results of such studies are accurate and complete in all material respects and fairly present the data derived from such studies, and the Company has no knowledge of, or reason to believe that, any clinical study the aggregate results of which are inconsistent with or otherwise call into question the results of any clinical study conducted by or on behalf of the Company and its Subsidiaries that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not received any written notices, correspondence or statements from the FDA, the European Medicines Agency or any other governmental agency or authority or any institutional review board or comparable body requiring, requesting or suggesting termination, suspension or material modification for or of any clinical or preclinical studies that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not received any written notices or statements from any governmental agency, and otherwise has no knowledge of, or reason to believe that any license, approval, permit or authorization to conduct any clinical trial of any potential product of the Company has been, will be or may be suspended, revoked modified or limited. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Pharmaceutical Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Pharmaceutical Product, (iii) imposes a clinical hold on any clinical

investigation by the Company or any of its Subsidiaries or withdraws or threatens to withdraw any approvals or designations, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA. The Company has not been informed by the FDA that the FDA will prohibit the marketing, sale, license or use in the United States of any product proposed to be developed, produced or marketed by the Company nor has the FDA expressed any concern as to approving or indicated it will not approve or clear for marketing any product being developed or proposed to be developed by the Company that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. For purposes of this Section, **"Pharmaceutical Product"** means each product subject to the jurisdiction of the FDA under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries. The Company and its directors, officers, employees, and agents are, and at all times prior hereto have been, in material compliance with, all health care laws and regulations applicable to the Company or any of its product candidates or activities, including development and testing of pharmaceutical products, kickbacks, recordkeeping, documentation requirements, the hiring of employees (to the extent governed by Health Care Laws), quality, safety, privacy, security, licensure, accreditation or any other aspect of developing and testing health care or pharmaceutical products (collectively, **"Health Care Laws"**). The Company has not received any notification, correspondence or any other written or oral communication, including notification of any pending or threatened claim, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority, including, without limitation, the FDA, the Drug Enforcement Agency (**"DEA"**), the CMA, and the U.S. Department of Health and Human Services Office of Inspector General, of potential or actual non-compliance by, or liability of, the Company under any Health Care Laws. To the Company's knowledge, there are no facts or circumstances that would reasonably be expected to give rise to liability of the Company under any Health Care Laws, except that would not individually or in the aggregate have a Material Adverse Effect.

2.46 Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

2.47 No Stabilization. Neither the Company nor, to its knowledge, any of its employees, directors or stockholders (without the consent of the Representative) has taken or shall take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

2.48 Confidentiality and Non-Competition. To the Company's knowledge, no director, officer, key employee or consultant of the Company is subject to any confidentiality, non-disclosure, non-competition agreement or non-solicitation agreement with any employer or prior employer that could reasonably be expected to materially affect his ability to be and act in his respective capacity of the Company or be expected to result in a Material Adverse Change.

2.49 Emerging Growth Company. From the time of the initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly in or through any Person authorized to act on its behalf in any Testing-the Waters Communication)

through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “**Emerging Growth Company**”). “Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act.

2.50 Testing-the-Waters Communications. The Company has not (i) alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with the written consent of the Representative and with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (ii) since October 31, 2018 authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company confirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule 2-C hereto. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

2.51 Electronic Road Show. The Company has made available a Bona Fide Electronic Road Show in compliance with Rule 433(d)(8)(ii) of the Securities Act Regulations such that no filing of any “road show” (as defined in Rule 433(h) of the Securities Act Regulations) is required in connection with the Offering.

2.52 Margin Securities. The Company owns no “margin securities” as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the “**Federal Reserve Board**”), and none of the proceeds of Offering will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the shares of Common Stock to be considered a “purpose credit” within the meanings of Regulation T, U or X of the Federal Reserve Board.

2.53 SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, since the Company was required by law or regulation to file such material (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the “SEC Reports”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with GAAP, except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

3. Covenants of the Company. The Company covenants and agrees as follows:

3.1 Amendments to Registration Statement. The Company shall deliver to the Representative, prior to filing, any amendment or supplement to the Registration Statement or Prospectus proposed to be filed after the Effective Date and not file any such amendment or supplement to which the Representative shall reasonably object in writing.

3.2 Federal Securities Laws.

3.2.1. Compliance. The Company, subject to Section 3.2.2, shall comply with the requirements of Rule 430A of the Securities Act Regulations, and will notify the Representative promptly, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed; (ii) of the receipt of any comments from the Commission; (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information; (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus, or of the suspension of the qualification of the Public Securities and Representative's Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the Securities Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the Offering of the Public Securities and Representative's Securities. The Company shall effect all filings required under Rule 424(b) of the Securities Act Regulations, in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and shall take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company shall use its best efforts to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

3.2.2. Continued Compliance. The Company shall comply with the Securities Act, the Securities Act Regulations, the Exchange Act and the Exchange Act Regulations so as to permit the completion of the distribution of the Public Securities as contemplated in this Agreement and in the Registration Statement, the Pricing Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172 of the Securities Act Regulations ("Rule 172"), would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an 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 not misleading; (ii) amend or supplement the Pricing Disclosure Package or the Prospectus in order that the Pricing Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the Pricing Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the Securities Act or the Securities Act Regulations, the Company will promptly (A) give the Representative notice of such event; (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the Pricing Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representative with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement;

provided that the Company shall not file or use any such amendment or supplement to which the Representative or counsel for the Underwriters shall reasonably object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative notice of any filings made pursuant to the Exchange Act or the Exchange Act Regulations within 48 hours prior to the Applicable Time. The Company shall give the Representative notice of its intention to make any such filing from the Applicable Time until the later of the Closing Date and the exercise in full or expiration of the Over-allotment Option specified in Section 1.2 hereof and will furnish the Representative with copies of the related document(s) a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which any Representative or counsel for the Underwriters shall reasonably object.

3.2.3. Exchange Act Registration. For a period of three (3) years after the date of this Agreement, the Company shall use its commercially reasonable efforts to maintain the registration of the shares of Common Stock under the Exchange Act. The Company shall not deregister the shares of Common Stock under the Exchange Act without the prior written consent of the Representative.

3.2.4. Free Writing Prospectuses. The Company agrees that, unless it obtains the prior written consent of the Representative, it shall not make any offer relating to the Public Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus,” or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Representative shall be deemed to have consented to each Issuer General Use Free Writing Prospectus hereto and any “road show that is a written communication” within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representative. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Underwriters as an “issuer free writing prospectus,” as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Underwriters and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

3.2.5. Testing-the-Waters Communications. If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company shall promptly notify the Representative and shall promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission. Since October 2018, the Company has not authorized anyone other than the Representative to engage in Testing-the-Waters Communications.

3.3 Delivery to the Underwriters of Registration Statements. The Company has delivered or made available or shall deliver or make available to the Representative and counsel for the Representative, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith) and signed copies of all consents and certificates of experts, and will also deliver to the Underwriters, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3.4 Delivery to the Underwriters of Prospectuses. The Company has delivered or made available or will deliver or make available to each Underwriter, without charge, as many copies of each Preliminary Prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3.5 Effectiveness and Events Requiring Notice to the Representative. The Company shall use its commercially reasonable efforts to cause the Registration Statement to remain effective with a current prospectus for at least nine (9) months after the Applicable Time, and shall notify the Representative immediately and confirm the notice in writing: (i) of the effectiveness of the Registration Statement and any amendment thereto; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 3.5 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement, the Pricing Disclosure Package or the Prospectus untrue or that requires the making of any changes in (a) the Registration Statement in order to make the statements therein not misleading, or (b) in the Pricing Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company shall make every reasonable effort to obtain promptly the lifting of such order.

3.6 Review of Financial Statements. For a period of three (3) years after the date of this Agreement, the Company, at its expense, shall use its commercially reasonable efforts to cause its regularly engaged independent registered public accounting firm to review (but not audit) the Company's financial statements for each of the three fiscal quarters immediately preceding the announcement of any quarterly financial information.

3.7 Listing. The Company shall use its commercially reasonable efforts to maintain the listing of the shares of Common Stock (including the Public Securities) on the Exchange for at least three (3) years from the date of this Agreement.

3.8 Financial Public Relations Firm. As of the Effective Date, the Company shall have retained a financial public relations firm reasonably acceptable to the Representative and the Company, which shall initially be Stern Investor Relations, which firm shall be experienced in assisting issuers in initial public offerings of securities and in their relations with their security holders, and shall retain such firm or another firm reasonably acceptable to the Representative for a period of not less than two (2) years after the Effective Date.

3.9 Reports to the Representative

3.9.1. Periodic Reports, etc. For a period of three (3) years after the date of this Agreement, the Company shall use its commercially reasonable efforts to furnish or make available to the Representative copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish to the Representative: (i) a copy of each periodic report the Company shall be required to file with the Commission under the Exchange Act and the Exchange Act Regulations; (ii) a copy of every press release and every news item and article with respect to the Company or its affairs which was released by the Company; (iii) a copy of each Form 8-K prepared and filed by the Company; (iv) five copies of each registration statement filed by the Company under the Securities Act; and (v) such additional documents and information with respect to the Company and the affairs of any future subsidiaries of the Company as the Representative may from time to time reasonably request; provided the Representative shall sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative and Representative Counsel in connection with the Representative's receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Representative pursuant to this Section 3.9.1.

3.9.2. Transfer Agent; Transfer Sheets. For a period of two (2) years after the date of this Agreement, the Company shall retain a transfer agent and registrar acceptable to the Representative (the "**Transfer Agent**") and shall furnish to the Representative at the Company's sole cost and expense such transfer sheets of the Company's securities as the Representative may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and DTC. American Stock Transfer & Trust Company is acceptable to the Representative to act as Transfer Agent for the shares of Common Stock.

3.9.3. Trading Reports. For a period of six months after the date of this Agreement, the Company shall provide to the Representative, at the Company's expense, such reports published by Exchange relating to price trading of the Public Securities, as the Representative shall reasonably request.

3.10 Payment of Expenses

3.10.1. General Expenses Related to the Offering. The Company hereby agrees to pay on each of the Closing Date and the Option Closing Date, if any, to the extent not paid at the Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to: (a) all filing fees and communication expenses relating to the registration of the shares of Common Stock to be sold in the Offering (including the Option Shares) with the Commission; (b) all Public Filing System filing fees associated with the review of the Offering by FINRA; (c) all fees and expenses relating to the listing of such Public Securities on the Exchange and such other stock exchanges as the Company and the Representative together determine, including any fees charges by The Depository Trust for new securities; (d) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Public Securities under the securities laws of such foreign jurisdictions as the Representative may reasonably designate; (e) the costs of all mailing and printing (if any) of the underwriting documents (including, without limitation, the Underwriting Agreement, any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers' Agreement, Underwriters' Questionnaire and Power of Attorney), Registration Statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (f) the costs and expenses of a public relations firm; (g) the costs of preparing, printing and delivering certificates representing the Public Securities (if any); (h) fees and expenses of the transfer agent for the shares of Common Stock; (i) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Underwriters; (j) the costs associated with post-Closing advertising the Offering in the national editions of the Wall Street Journal and New York Times; (k) the

fees and expenses of the Company's accountants; (l) the fees and expenses of the Company's legal counsel and other agents and representatives; and (m) fees and expenses of the Underwriters' legal counsel not to exceed \$125,000. The Representative may deduct from the net proceeds of the Offering payable to the Company on the Closing Date, or the Option Closing Date, if any, the expenses set forth herein (less any amounts previously advanced against such actual reimbursable expense) to be paid by the Company to the Underwriters; provided however, that in the event that the Offering is terminated, the Company agrees to reimburse the Underwriters pursuant to Section 8.3(c).

3.11 Application of Net Proceeds. The Company shall apply the net proceeds from the Offering received by it in a manner consistent with the application thereof described under the caption "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

3.12 Delivery of Earnings Statements to Security Holders. The Company shall make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth (15th) full calendar month following the date of this Agreement, an earnings statement (which need not be certified by independent registered public accounting firm unless required by the Securities Act or the Securities Act Regulations, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve (12) consecutive months beginning after the date of this Agreement.

3.13 Stabilization. Neither the Company nor, to its knowledge, any of its employees, directors or stockholders (without the consent of the Representative) has taken directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

3.14 Internal Controls. The Company shall maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

3.15 Accountants. As of the Effective Date, the Company shall have retained an independent registered public accounting firm, as required by the Securities Act and the Regulations and the PCAOB, reasonably acceptable to the Representative and the Company shall continue to retain a nationally recognized independent public accounting firm for a period of at least three (3) years after the Effective Date. The Representative acknowledges that the Auditor is acceptable to the Representative.

3.16 FINRA. The Company shall advise the Representative (who shall make an appropriate filing with FINRA) if it is or becomes aware that (i) any officer or director of the Company, (ii) any beneficial owner of 5% or more of any class of the Company's securities or (iii) any beneficial owner of the Company's unregistered equity securities which were acquired during the 180 days immediately preceding the filing of the Registration Statement is or becomes an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

3.17 No Fiduciary Duties. The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual in nature and that none of the Underwriters or their affiliates or any selling agent shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement.

3.18 Company Lock-Up Agreements.

3.18.1. Restriction on Sales of Capital Stock. The Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of three (3) months after the date of this Agreement (the “**Lock-Up Period**”), (i) 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, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or caused to be filed any registration statement with the Commission (other than on a Form S-8 or successor form thereto) relating to the offering of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (iii) complete any offering of debt securities of the Company, other than entering into a line of credit with a traditional bank or (iv) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of capital stock of the Company, whether any such transaction described in clause (i), (ii), (iii) or (iv) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise.

The restrictions contained in this Section 3.18.1 shall not apply to (i) the shares of Common Stock to be sold hereunder, (ii) the issuance by the Company of shares of Common Stock upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date hereof, which is disclosed in the Registration Statement, Pricing Disclosure Package and Prospectus or (iii) the issuance by the Company of stock options or shares of capital stock of the Company under any equity compensation plan of the Company, provided that (a) in each of (ii) and (iii) above, the underlying shares shall be restricted from sale during the entire Lock-Up Period and (b) such options, warrants and convertible securities shall not have been amended, revised or otherwise modified since the date of this Agreement to increase the number of securities or decrease the exercise, or conversion price or exchange price or rate or extend the term of the security.

3.18.2. Restriction on Continuous Offerings. Notwithstanding the restrictions contained in Section 3.18.1, the Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of nine (9) months after the date of this Agreement, directly or indirectly in any “at-the-market” or continuous equity transaction, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company.

3.19 Release of D&O Lock-up Period. If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in the Lock-Up Agreements described in Section 2.24 hereof for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least three (3) Business Days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit C hereto through a major news service at least two (2) Business Days before the effective date of the release or waiver.

3.20 Blue Sky Qualifications. The Company shall use its commercially reasonable efforts, in cooperation with the Underwriters, if necessary, to qualify the Public Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representative may designate and to maintain such qualifications in effect so long as required to complete the distribution of the Public Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

3.21 Reporting Requirements. The Company, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act and Exchange Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Public Securities as may be required under Rule 463 under the Securities Act Regulations.

3.22 Emerging Growth Company Status. The Company shall promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) completion of the distribution of the Public Securities within the meaning of the Securities Act and (ii) fifteen (15) days following the completion of the Lock-Up Period.

3.23 Reservation of Common Stock. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue the Public Securities and the shares of Common Stock issuable upon exercise of the Representative's Warrants.

4. Conditions of Underwriters' Obligations. The obligations of the Underwriters to purchase and pay for the Public Securities, as provided herein, shall be subject to (i) the continuing accuracy of the representations and warranties of the Company as of the date hereof and as of each of the Closing Date and the Option Closing Date, if any; (ii) the accuracy of the statements of officers of the Company made pursuant to the provisions hereof; (iii) the performance by the Company of its obligations hereunder; and (iv) the following conditions:

4.1 Regulatory Matters.

4.1.1. Effectiveness of Registration Statement; Rule 430A Information. The Registration Statement has become effective not later than 5:00 p.m., Eastern time, on the date of this Agreement or such later date and time as shall be consented to in writing by you, and, at each of the Closing Date and any Option Closing Date, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the Securities Act, no order preventing or suspending the use of any Preliminary Prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information. The Prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) (without reliance on Rule 424(b)(8)) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A.

4.1.2. FINRA Clearance. On or before the date of this Agreement, the Representative shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement.

4.1.3. Exchange Stock Market Clearance. On the Closing Date, the Company's shares of Common Stock, including, when issued, the Public Securities and the shares of Common Stock underlying the Representative's Warrants, shall be listed on the Exchange.

4.2 Company Counsel Matters.

4.2.1. Closing Date Opinion of Counsel. On the Closing Date, the Representative shall have received the favorable opinion of Troutman Pepper Hamilton Sanders LLP, counsel to the Company, dated the Closing Date and addressed to the Representative, substantially in a form acceptable to the Representative.

4.2.2. Opinion of Special Intellectual Property Counsel for the Company. On the Closing Date, the Representative shall have received the opinion of Foley Hoag LLP, special intellectual property counsel for the Company, dated the Closing Date, addressed to the Representative, substantially in a form acceptable to the Representative.

4.2.3. Closing Date Opinion of Regulatory Counsel to the Company. On the Closing Date, the Representative shall have received the favorable opinion of Troutman Pepper Hamilton Sanders LLP, regulatory counsel to the Company, and a written statement providing certain “10b-5” negative assurances, dated the Closing Date and addressed to the Representative, substantially in a form acceptable to the Representative.

4.2.4. Option Closing Date Opinions of Counsel. On the Option Closing Date, if any, the Representative shall have received the favorable opinions of each counsel listed in Sections 4.2.1, 4.2.2 and 4.2.3, dated the Option Closing Date, addressed to the Representative and in form and substance reasonably satisfactory to the Representative, confirming as of the Option Closing Date, the statements made by such counsels in their respective opinions delivered on the Closing Date.

4.2.5. Reliance. In rendering such opinions, such counsel may rely: (i) as to matters involving the application of laws other than the laws of the United States and jurisdictions in which they are admitted, to the extent such counsel deems proper and to the extent specified in such opinion, if at all, upon an opinion or opinions (in form and substance reasonably satisfactory to the Representative) of other counsel reasonably acceptable to the Representative, familiar with the applicable laws; and (ii) as to matters of fact, to the extent they deem proper, on certificates or other written statements of officers of the Company and officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company; provided that copies of any documents respecting the corporate existence or good standing of the Company shall be delivered to Representative Counsel if requested. The opinions of each counsel listed in Sections 4.2.1, 4.2.2 and 4.2.3 and any opinion relied upon by any such counsel shall include a statement to the effect that it may be relied upon by Representative Counsel in its opinion delivered to the Underwriters.

4.3 Comfort Letters.

4.3.1. Cold Comfort Letter. At the time this Agreement is executed you shall have received a cold comfort letter containing statements and information of the type customarily included in accountants’ comfort letters with respect to the financial statements and certain financial information contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, addressed to the Representative and in form and substance satisfactory in all respects to you and to the Auditor, dated as of the date of this Agreement.

4.3.2. Bring-down Comfort Letter. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received from the Auditor a letter, dated as of the Closing Date or the Option Closing Date, as applicable, to the effect that the Auditor reaffirms the statements made in the letter furnished pursuant to Section 4.3.1, except that the specified date referred to shall be a date not more than three (3) business days prior to the Closing Date or the Option Closing Date, as applicable.

4.4 Officers' Certificates.

4.4.1. Officers' Certificate. The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date), of its Chief Executive Officer, its President and its Chief Financial Officer (on behalf of the Company and not in an individual capacity) stating that (i) such officers have carefully examined the Registration Statement, the Pricing Disclosure Package, any Issuer Free Writing Prospectus and the Prospectus and, to their knowledge, the Registration Statement and each amendment thereto, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date) did not include any untrue statement of a material fact and did not omit to state a material fact necessary to be stated therein or necessary to make the statements therein not misleading, and the Pricing Disclosure Package, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), any Issuer Free Writing Prospectus as of its date and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary to be stated therein or necessary to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus, (iii) to their knowledge, as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the representations and warranties of the Company in this Agreement are true and correct in all material respects (except for those representations and warranties qualified as to materiality, which shall be true and correct in all respects and except for those representations and warranties which refer to facts existing at a specific date, which shall be true and correct as to such date) and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date (or any Option Closing Date if such date is other than the Closing Date), and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Pricing Disclosure Package, any material adverse change in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a Material Adverse Change.

4.4.2. Secretary's Certificate. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received a certificate of the Company signed by the Secretary of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, certifying: (i) that each of the Charter and Bylaws is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) as to the accuracy and completeness of all correspondence between the Company or its counsel and the Commission; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

4.4.3. Chief Financial Officer's Certificate. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received a certificate of the Chief Financial Officer of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, with respect to the accuracy of certain information contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, in a form reasonably acceptable to the Representative.

4.5 No Material Changes. Prior to and on each of the Closing Date and each Option Closing Date, if any: (i) there shall have been no Material Adverse Change or development involving a prospective material adverse change in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (ii) no action, suit or proceeding, at law or in equity, shall

have been pending or threatened against the Company or any Insider before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding that would reasonably be expected to materially adversely affect the business, operations, properties, assets, prospects or financial condition or income of the Company, except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; and (iv) the Registration Statement, the Pricing Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations and shall conform in all material respects to the requirements of the Securities Act and the Securities Act Regulations, and neither the Registration Statement, the Pricing Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

4.6 Corporate Proceedings. All corporate proceedings and other legal matters incident to the authorization, form and validity of each of this Agreement, the Public Securities, the Registration Statement, the Disclosure Package and the Prospectus and all other legal matters relating to this Agreement and the transactions contemplated hereby and thereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

4.7 Delivery of Agreements

4.7.1. Lock-Up Agreements. On or before the date of this Agreement, the Company shall have delivered to the Representative executed copies of the Lock-Up Agreements from each of the persons listed in Schedule 3 hereto.

4.7.2. Representative's Warrant Agreement. On the Closing Date, the Company shall have delivered to the Representative executed copies of the Representative's Warrant Agreement.

4.8 Additional Documents. At the Closing Date and at each Option Closing Date (if any) Representative Counsel shall have been furnished with such documents and opinions as they may require for the purpose of enabling Representative Counsel to deliver an opinion to the Underwriters, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Public Securities and the Representative's Securities as herein contemplated shall be satisfactory in form and substance to the Representative and Representative Counsel.

5. Indemnification

5.1 Indemnification of the Underwriters

5.1.1. General. Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless each Underwriter, its affiliates and each of its and their respective directors, officers, members, employees, representatives, partners, stockholders, affiliates, counsel, and agents and each person, if any, who controls any such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the "**Underwriter Indemnified Parties**," and each an "**Underwriter Indemnified Party**"), against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim

whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries (a “**Claim**”) arising out of or based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in (A) the Registration Statement, the Pricing Disclosure Package, any Preliminary Prospectus, the Prospectus, or in any Issuer Free Writing Prospectus or in any Written Testing-the-Waters Communication (as from time to time each may be amended and supplemented); (B) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any “road show” or investor presentations made to investors by the Company (whether in person or electronically); (C) any application or other document or written communication (in this Article V, collectively called “application”) executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, Trading Market or any securities exchange; (ii) or the omission or alleged omission therefrom of 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, unless such statement or omission was made in reliance upon, and in conformity with, the Underwriters’ Information, (iii) in whole or in part, any inaccuracy in the representations and warranties of the Company contained herein, or (iv) in whole or in part, any failure of the Company to perform its obligations hereunder or under applicable law. The Company also agrees that, subject to the procedures, conditions and limitations set forth in Section 5.1.2, it will reimburse each Underwriter Indemnified Party for all fees and expenses (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) (collectively, the “**Expenses**”), and further agrees wherever and whenever possible to advance payment of Expenses as they are incurred by an Underwriter Indemnified Party in investigating, preparing, pursuing or defending any Claim.

5.1.2. Notifications and Other Indemnification Procedures. Any party that proposes to assert the right to be indemnified under this Section 5 shall, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 5, notify each such indemnifying party of the commencement of such action, but the omission so to notify such indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party under the foregoing provisions of this Section 5 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense; provided, however, that if, the Representative has reasonably concluded based upon the advice of counsel that it is advisable for the Underwriters to be represented as a group by separate counsel, the employment of separate counsel at the expense of the Company is authorized in writing by the Company or the Company shall not have employed counsel to have charge of the defense of such action, the Representative shall have the right to employ a single counsel (in addition to local counsel) to represent the Representative and all Underwriters who may be subject to liability arising from any claim in respect of which indemnity may be sought by the Underwriters under Section 5.1.1, in which event the reasonable fees and expenses of such separate counsel shall be borne by

the indemnifying party or parties and reimbursed to the Underwriters as incurred. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm (and local counsel) admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges shall be reimbursed by the indemnifying party promptly as they are incurred. An indemnifying party shall not be liable for any settlement of any action or claim effected without its written consent (which consent will not be unreasonably withheld or delayed). No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 5 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising or that may arise out of such claim, action or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party. Notwithstanding the foregoing, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by this Section 5.1.2 effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, and (ii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

5.2 Indemnification of the Company. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to the several Underwriters, as incurred, but only with respect to untrue statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, the Underwriters' Information. In case any action shall be brought against the Company or any other person so indemnified based on any Preliminary Prospectus, the Registration Statement, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against any Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the several Underwriters by the provisions of Section 5.1.2. The Company agrees promptly to notify the Representative of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Public Securities or in connection with the Registration Statement, the Pricing Disclosure Package, the Prospectus, or any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication.

5.3 Contribution.

5.3.1. Contribution Rights. If the indemnification provided for in this Section 5 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 5.1 or 5.2 in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the Offering of the Public Securities, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion

as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, with respect to such Offering shall be deemed to be in the same proportion as the total net proceeds from the Offering of the Public Securities purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of the Common Stock purchased under this Agreement, as set forth in the table on the cover page of the Prospectus, on the other hand. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 5.3.1 were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 5.3.1 shall be deemed to include, for purposes of this Section 5.3.1, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 5.3.1 in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the Offering of the Public Securities exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

5.3.2. Contribution Procedure. Within fifteen (15) days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party ("contributing party"), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid 15 days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 5.3.2 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available. Each Underwriter's obligations to contribute pursuant to this Section 5.3 are several and not joint.

6. Default by an Underwriter.

6.1 Default Not Exceeding 10% of Firm Shares or Option Shares If any Underwriter or Underwriters shall default in its or their obligations to purchase the Firm Shares or the Option Shares, if the Over-allotment Option is exercised hereunder, and if the number of the Firm Shares or Option Shares with respect to which such default relates does not exceed in the aggregate 10% of the number of Firm Shares or Option Shares that all Underwriters have agreed to purchase hereunder, then such Firm Shares or Option Shares to which the default relates shall be purchased by the non-defaulting Underwriters in proportion to their respective commitments hereunder.

6.2 Default Exceeding 10% of Firm Shares or Option Shares. In the event that the default addressed in Section 6.1 relates to more than 10% of the Firm Shares or Option Shares, the Representative may in its discretion arrange for it or for another party or parties to purchase such Firm Shares or Option Shares to which such default relates on the terms contained herein. If, within one (1) Business Day after such default relating to more than 10% of the Firm Shares or Option Shares, the Representative does not arrange for the purchase of such Firm Shares or Option Shares, then the Company shall be entitled to a further period of one (1) Business Day within which to procure another party or parties satisfactory to the Representative to purchase said Firm Shares or Option Shares on such terms. In the event that neither the Representative nor the Company arrange for the purchase of the Firm Shares or Option Shares to which a default relates as provided in this Section 6, this Agreement will automatically be terminated by the Representative or the Company without liability on the part of the Company (except as provided in Sections 3.10 and 5 hereof) or the several Underwriters (except as provided in Section 5 hereof); provided, however, that if such default occurs with respect to the Option Shares, this Agreement will not terminate as to the Firm Shares; and provided, further, that nothing herein shall relieve a defaulting Underwriter of its liability, if any, to the other Underwriters and to the Company for damages occasioned by its default hereunder.

6.3 Postponement of Closing Date. In the event that the Firm Shares or Option Shares to which the default relates are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, you or the Company shall have the right to postpone the Closing Date or Option Closing Date for a reasonable period, but not in any event exceeding five (5) Business Days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Pricing Disclosure Package or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus that in the opinion of counsel for the Underwriter may thereby be made necessary. The term “Underwriter” as used in this Agreement shall include any party substituted under this Section 6 with like effect as if it had originally been a party to this Agreement with respect to such shares of Common Stock.

7. Additional Covenants.

7.1 Board Composition and Board Designations. The Company shall ensure that: (i) the qualifications of the persons serving as members of the Board of Directors and the overall composition of the Board comply with the Sarbanes-Oxley Act, with the Exchange Act and with the listing rules of the Exchange or any other national securities exchange, as the case may be, in the event the Company seeks to have its Public Securities listed on another exchange or quoted on an automated quotation system, and (ii) if applicable, at least one member of the Audit Committee of the Board of Directors qualifies as an “audit committee financial expert,” as such term is defined under Regulation S-K and the listing rules of the Exchange.

7.2 Prohibition on Press Releases and Public Announcements. The Company shall not issue press releases or engage in any other publicity, without the Representative’s prior written consent, for a period ending at 5:00 p.m., Eastern time, on the first (1st) Business Day following the forty-fifth (45th) day after the Closing Date, other than normal and customary releases issued in the ordinary course of the Company’s business.

7.3 Right of First Refusal. Nothing in this Agreement shall amend or modify the terms of Section 7.3—Right of First Refusal of that certain Underwriting Agreement, dated December 22, 2020, by and between the Company and ThinkEquity, a Division of Fordham Financial Management, Inc.

8. Effective Date of this Agreement and Termination Thereof.

8.1 Effective Date. This Agreement shall become effective when both the Company and the Representative have executed the same and delivered counterparts of such signatures to the other party.

8.2 Termination. The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in the Representative's opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on the New York Stock Exchange or the Nasdaq Stock Market LLC shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction; or (iii) if the United States shall have become involved in a new war or an increase in major hostilities; or (iv) if a banking moratorium has been declared by a New York State or federal authority; or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets; or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in the Representative's opinion, make it inadvisable to proceed with the delivery of the Firm Shares or Option Shares; or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder; or (viii) if the Representative shall have become aware after the date hereof of such a Material Adverse Change, or such Adverse Material Change in general market conditions as in the Representative's judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities.

8.3 Expenses. Notwithstanding anything to the contrary in this Agreement, except in the case of a default by the Underwriters, pursuant to Section 6.2 above, in the event that this Agreement shall not be carried out for any reason whatsoever, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Underwriters their actual and accountable out-of-pocket expenses related to the transactions contemplated herein then due and payable (including the fees and disbursements of Representative Counsel) up to \$300,000, inclusive of the \$25,000 advance for accountable expenses previously paid by the Company to the Representative (the "**Advance**") and upon demand the Company shall pay the full amount thereof to the Representative on behalf of the Underwriters; provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement. Notwithstanding the foregoing, any advance received by the Representative will be reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(g)(4)(A).

8.4 Indemnification. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Section 5 shall remain in full force and effect and shall not be in any way affected by, such election or termination or failure to carry out the terms of this Agreement or any part hereof.

8.5 Representations, Warranties, Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company or (ii) delivery of and payment for the Public Securities.

9. Miscellaneous.

9.1 Notices. All communications hereunder, except as herein otherwise specifically provided, shall be in writing and shall be mailed (registered or certified mail, return receipt requested), personally delivered or sent by facsimile transmission and confirmed and shall be deemed given when so delivered or faxed and confirmed or if mailed, two (2) days after such mailing.

If to the Representative:

ThinkEquity,
A Division of Fordham Financial Management, Inc.
17 State Street, 22nd Fl
New York, New York 10004
Attn: Mr. Eric Lord, Head of Investment Banking
Fax No.: (212) 349-2550

with a copy (which shall not constitute notice) to:

Gracin & Marlow, LLP
The Chrysler Building
405 Lexington Avenue, 26th Floor
New York, New York 10174
Attention: Leslie Marlow, Esq. or Patrick J. Egan, Esq.
E-mail: lmarlow@gracinmarlow.com or pegan@gracinmarlow.com
Fax No.: (212) 208-4657

If to the Company:

Inhibikase Therapeutics, Inc.
3350 Riverwood Parkway SE, Suite 1900
Atlanta, Georgia 30339
Attention: Milton H. Werner, Ph.D.
President and Chief Executive Officer
Fax No.: (770) 240-1401

with a copy (which shall not constitute notice) to:

Troutman Pepper Hamilton Sanders LLP
The New York Times Building, 37th Floor
620 Eighth Avenue
Attn: Merrill M. Kraines, Esq.
New York, New York 10018-1405
Fax No.: (212) 658-9982

9.2 Headings. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

9.3 Amendment. This Agreement may only be amended by a written instrument executed by each of the parties hereto.

9.4 Entire Agreement. This Agreement (together with the other agreements and documents being delivered pursuant to or in connection with this Agreement) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof and thereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof. Notwithstanding anything to the contrary set forth herein, it is understood and agreed by the parties hereto that all other terms and conditions of that certain engagement letter between the Company and ThinkEquity, a division of Fordham Financial Management, Inc., dated May 7, 2021, shall remain in full force and effect, provided however that to the extent that any provision of the engagement letter is inconsistent with a provision of this Agreement, the terms contained in this Agreement shall prevail.

9.5 Binding Effect. This Agreement shall inure solely to the benefit of and shall be binding upon the Representative, the Underwriters, the Company and the controlling persons, directors and officers referred to in Section 5 hereof, and their respective successors, legal representatives, heirs and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of securities from any of the Underwriters.

9.6 Governing Law; Consent to Jurisdiction; Trial by Jury. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Agreement shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9.1 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company agrees that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

9.7 Execution in Counterparts. This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Delivery of a signed counterpart of this Agreement by facsimile or email/pdf transmission shall constitute valid and sufficient delivery thereof.

9.8 Waiver, etc. The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between us.

Very truly yours,

INHIBIKASE THERAPEUTICS, INC.

By: _____
Name: Milton H. Werner, Ph.D.
Title: President and Chief Executive Officer

Confirmed as of the date first written above mentioned, on behalf of itself and as Representative of the several Underwriters named on Schedule 1 hereto:

**THINKEQUITY,
A Division of Fordham Financial Management, Inc.**

By: _____
Name:
Title:

SIGNATURE PAGE TO INHIBIKASE THERAPEUTICS, INC. – UNDERWRITING AGREEMENT

SCHEDULE 1

<u>Underwriter</u>	Total Number of Firm Shares to be Purchased	Number of Additional Shares to be Purchased if the Over- Allotment Option is Fully Exercised
ThinkEquity, a division of Fordham Financial Management, Inc.	[]	[]
JonesTrading Institutional Services LLC	[]	[]
TOTAL	[]	[]

SCHEDULE 2-A

Pricing Information

Number of Firm Shares: [•]

Number of Option Shares: [•]

Public Offering Price per Share: \$[•]

Underwriting Discount per Share: \$[•]

Proceeds to Company per Share (before expenses): \$[•]

SCHEDULE 2-B

Issuer General Use Free Writing Prospectuses

None.

SCHEDULE 2-C

Written Testing-the-Waters Communications

None.

SCHEDULE 3

List of Lock-Up Parties

EXHIBIT A

Form of Representative's Warrant Agreement

Exhibit B
Lock-Up Agreement

[•], 2021

ThinkEquity,
A Division of Fordham Financial Management, Inc.
17 State Street, 22nd Floor
New York, New York 10004

As Representative of the several Underwriters (if any) named on Schedule 1 to the Underwriting Agreement reference below

Ladies and Gentlemen:

The undersigned understands that you (the “**Representative**”) and certain other firms, if any (the “**Underwriters**”), propose to enter into an Underwriting Agreement (the “**Underwriting Agreement**”) providing for the purchase by the Underwriters of shares of common stock (the “**Common Stock**”) and may also include other securities, of Inhibikase Therapeutics, Inc., a Delaware corporation (the “**Company**”), and that the Underwriters propose to reoffer the Common Stock (and potentially other securities of the Company) to the public (the “**Offering**”).

In consideration of the execution of the Underwriting Agreement by the Underwriters, and for other good and valuable consideration, the undersigned hereby irrevocably agrees that, without the prior written consent of the Representative, on behalf of the Underwriters, the undersigned will not, directly or indirectly, (1) offer for sale, sell, pledge, or otherwise transfer or dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) any shares of Common Stock (including, without limitation, shares of Common Stock that may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission and shares of Common Stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for Common Stock, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, (3) except as provided for below, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock or any other securities of the Company, or (4) publicly disclose the intention to do any of the foregoing for a period commencing on the date hereof and ending on the [six (8)][three (3)]¹ month anniversary of the date of the Prospectus relating to the Offering (such [6][3]-month period, the “**Lock-Up Period**”).

The foregoing paragraph shall not apply to (a) transactions relating to shares of Common Stock or other securities acquired in the open market after the completion of the Offering, *provided* that no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), shall be required or shall be voluntarily made in connection with such transactions; (b) bona fide gifts of shares of any class of the Company’s capital stock or any security convertible into Common Stock, in each case that are made exclusively between and among the undersigned or members of the undersigned’s family, or

¹ Directors and officers will be lock-ed up for six (6) months and greater than 5% stockholders will belocked-up for three (3) months.

affiliates of the undersigned, including its partners (if a partnership) or members (if a limited liability company); (c) any transfer of shares of Common Stock or any security convertible into Common Stock by will or intestate succession upon the death of the undersigned; (d) transfer of shares of Common Stock or any security convertible into Common Stock to an immediate family member (for purposes of this Lock-Up Letter Agreement, “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin) or any trust, limited partnership, limited liability company or other entity for the direct or indirect benefit of the undersigned or any immediate family member of the undersigned; *provided* that, in the case of clauses (b)-(d) above, it shall be a condition to any such transfer that (i) the transferee/donee agrees to be bound by the terms of this Lock-Up Letter Agreement (including, without limitation, the restrictions set forth in the preceding sentence) to the same extent as if the transferee/donee were a party hereto, (ii) each party (donor, donee, transferor or transferee) shall not be required by law (including without limitation the disclosure requirements of the Securities Act of 1933, as amended (the “**Securities Act**”), and the Exchange Act) to make, and shall agree to not voluntarily make, any filing or public announcement of the transfer or disposition prior to the expiration of the Lock-Up Period referred to above, and (iii) the undersigned notifies the Representative at least two business days prior to the proposed transfer or disposition; (e) the transfer of shares to the Company to satisfy withholding obligations for any equity award granted pursuant to the terms of the Company’s stock option/incentive plans, such as upon exercise, vesting, lapse of substantial risk of forfeiture, or other similar taxable event, in each case on a “cashless” or “net exercise” basis (which, for the avoidance of doubt shall not include “cashless” exercise programs involving a broker or other third party), *provided* that as a condition of any transfer pursuant to this clause (e), that if the undersigned is required to file a report under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock during the Lock-Up Period, the undersigned shall include a statement in such report, and if applicable an appropriate disposition transaction code, to the effect that such transfer is being made as a share delivery or forfeiture in connection with a net value exercise, or as a forfeiture or sale of shares solely to cover required tax withholding, as the case may be; (f) transfers of shares of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock pursuant to a bona fide third party tender offer made to all holders of the Common Stock, merger, consolidation or other similar transaction involving a change of control (as defined below) of the Company, including voting in favor of any such transaction or taking any other action in connection with such transaction, *provided* that in the event that such merger, tender offer or other transaction is not completed, the Common Stock and any security convertible into or exercisable or exchangeable for Common Stock shall remain subject to the restrictions set forth herein; (g) the exercise of warrants or the exercise of stock options granted pursuant to the Company’s stock option/incentive plans or otherwise outstanding on the date hereof; *provided*, that the restrictions shall apply to shares of Common Stock issued upon such exercise or conversion; (h) the establishment of any contract, instruction or plan that satisfies all of the requirements of Rule 10b5-1 (a “**Rule 10b5-1 Plan**”) under the Exchange Act; *provided, however*, that no sales of Common Stock or securities convertible into, or exchangeable or exercisable for, Common Stock, shall be made pursuant to a Rule 10b5-1 Plan prior to the expiration of the Lock-Up Period; *provided further*, that the Company is not required to report the establishment of such Rule 10b5-1 Plan in any public report or filing with the Commission under the Exchange Act during the lock-up period and does not otherwise voluntarily effect any such public filing or report regarding such Rule 10b5-1 Plan; and (i) any demands or requests for, or exercise of any right with respect to, or the taking of any action in preparation of, the registration by the Company under the Securities Act of the undersigned’s shares of Common Stock, *provided* that no transfer of the undersigned’s shares of Common Stock registered pursuant to the exercise of any such right and no registration statement shall be filed under the Securities Act with respect to any of the undersigned’s shares of Common Stock during the Lock-Up Period. For purposes of clause (f) above, “change of control” shall mean the consummation of any bona fide third party tender offer, merger, purchase, consolidation or other similar transaction the result of which is that any “person” (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of a majority of total voting power of the voting stock of the Company.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's securities subject to this Lock-Up Letter Agreement except in compliance with this Lock-Up Letter Agreement.

If the undersigned is an officer or director of the Company, (i) the undersigned agrees that the foregoing restrictions shall be equally applicable to any shares of Common Stock that the undersigned may purchase in the Offering; (ii) the Representative agrees that, at least three (3) business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of securities subject to this Lock-Up Letter Agreement, the Representative will notify the Company of the impending release or waiver; and (iii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two (2) business days before the effective date of the release or waiver. Any release or waiver granted by the Representative hereunder to any such officer or director shall only be effective two (2) business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer of securities subject to this Lock-Up Letter Agreement not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this securities subject to this Lock-Up Letter Agreement to the extent and for the duration that such terms remain in effect at the time of such transfer.

It is understood that, if the Company notifies the Underwriters that it does not intend to proceed with the Offering, if the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the securities, the undersigned will be released from its obligations under this Lock-Up Letter Agreement.

The undersigned understands that the Company and the Underwriters will proceed with the Offering in reliance on this Lock-Up Letter Agreement.

Whether or not the Offering actually occurs depends on a number of factors, including market conditions. Any Offering will only be made pursuant to an Underwriting Agreement, the terms of which are subject to negotiation between the Company and the Underwriters.

This Lock-Up Letter Agreement shall automatically terminate upon the earliest to occur, if any, of (1) the termination of the Underwriting Agreement before the sale of any securities to the Underwriters or (2) the termination of the Offering.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Letter Agreement and that, upon request, the undersigned will execute any additional documents necessary in connection with the enforcement hereof. Any obligations of the undersigned shall be binding upon the heirs, personal representative, successors and assigns of the undersigned.

Very truly yours,

By:

EXHIBIT C

Form of Press Release

INHIBIKASE THERAPEUTICS, INC.

[Date]

Inhibikase Therapeutics, Inc. (the "Company") announced today that ThinkEquity, a division of Fordham Financial Management, Inc., acting as representative for the underwriters in the Company's recent public offering of _____ shares of the Company's common stock, is [waiving] [releasing] a lock-up restriction with respect to _____ shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on _____, 20____, and the shares may be sold on or after such date.

This press release is not an offer or sale of the securities in the United States or in any other jurisdiction where such offer or sale is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act of 1933, as amended.

Form of Representative's Warrant Agreement

THE REGISTERED HOLDER OF THIS PURCHASE WARRANT BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER OR ASSIGN THIS PURCHASE WARRANT EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS PURCHASE WARRANT AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE THIS PURCHASE WARRANT FOR A PERIOD OF ONE YEAR FOLLOWING THE COMMENCEMENT DATE (DEFINED BELOW) TO ANYONE OTHER THAN (I) THINKEQUITY, A DIVISION OF FORDHAM FINANCIAL MANAGEMENT, INC., OR AN UNDERWRITER OR A SELECTED DEALER IN CONNECTION WITH THE OFFERING, OR (II) A BONA FIDE OFFICER OR PARTNER OF THINKEQUITY, A DIVISION OF FORDHAM FINANCIAL MANAGEMENT, INC., OR OF ANY SUCH UNDERWRITER OR SELECTED DEALER.

THIS PURCHASE WARRANT IS NOT EXERCISABLE PRIOR TO [] [DATE THAT IS ONE (1) YEAR FROM THE COMMENCEMENT DATE]. VOID AFTER 5:00 P.M., EASTERN TIME, [] [DATE THAT IS FIVE YEARS FROM THE COMMENCEMENT DATE].

WARRANT TO PURCHASE COMMON STOCK
INHIBIKASE THERAPEUTICS, INC.

Warrant Shares: _____¹

Initial Exercise Date: _____, 2022

THIS WARRANT TO PURCHASE COMMON STOCK (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after _____, 2022, which is one (1) year immediately following the Commencement Date (the "Initial Exercise Date") and, in accordance with FINRA Rule 5110(g)(8) (A), prior to 5:00 p.m. (New York time) on [], 2026, the date that is five (5) years following the Commencement Date (the "Termination Date") but not thereafter, to subscribe for and purchase from INHIBIKASE THERAPEUTICS, INC., a Delaware corporation (the "Company"), up to _____¹ shares of Common Stock, par value \$0.001 per share (the "Common Stock"), of the Company (the "Warrant Shares"), as subject to adjustment hereunder. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

¹ Total equals 5% of the aggregate number of shares of common stock issued and sold in the Offering (excluding shares of common stock sold pursuant to the over-allotment, if any).

“Commission” means the United States Securities and Exchange Commission.

“Commencement Date” means [____], 2021, the date on which sales of the securities issued in the Offering commenced.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Offering” shall have the meaning ascribed to such term in Section 1.2.1 of the Underwriting Agreement.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Rule 144” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Trading Day” means a day on which the New York Stock Exchange is open for trading.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Underwriting Agreement” means that certain Underwriting Agreement, dated as of [____], 2021, by and between, the Company and ThinkEquity, a division of Fordham Financial Management, Inc., as representatives of the underwriters set forth therein.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of a share of Common Stock for such date (or the nearest preceding date) on the OTCQB or OTCQX as applicable, (c) if Common Stock is not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of the Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise Form annexed hereto. Within two (2) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within five (5) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise Form within two (2) Business Days of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be \$_____,² subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at any time on or after the Initial Exercise Date, there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading

² 125% of the public offering price per share of common stock issued and sold in the Offering.

Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a "cashless exercise," the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by its transfer agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder, or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 and, in either case, the Warrant Shares have been sold by the Holder prior to the Warrant Share Delivery Date (as defined below), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is two (2) Trading Days after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). If the Warrant Shares can be delivered via DWAC, the transfer agent shall have received from the Company, at the expense of the Company, any legal opinions or other documentation required by it to deliver such Warrant Shares without legend (subject to receipt by the Company of reasonable back up documentation from the Holder, including with respect to affiliate status) and, if applicable and requested by the Company prior to the Warrant Share Delivery Date, the transfer agent shall have received from the Holder a confirmation of sale of the Warrant Shares (provided the requirement of the Holder to provide a confirmation as to the sale of Warrant Shares shall not be applicable to the issuance of unlegended Warrant Shares upon a cashless exercise of this Warrant if the Warrant Shares are then eligible for resale pursuant to Rule 144(b)(1)). The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant

has been exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the second Trading Day following the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause its transfer agent to deliver to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise; provided, however, that the Holder shall be required to return any Warrant Shares or Common Stock subject to any such rescinded exercise notice concurrently with the return to Holder of the aggregate Exercise Price paid to the Company for such Warrant Shares and the restoration of Holder's right to acquire such Warrant Shares pursuant to this Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause its transfer agent to transmit to the Holder the Warrant Shares pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock

having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all transfer agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

viii. Signature. This Section 2 and the exercise form attached hereto set forth the totality of the procedures required of the Holder in order to exercise this Purchase Warrant. Without limiting the preceding sentences, no ink-original exercise form shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any exercise form be required in order to exercise this Purchase Warrant. No additional legal opinion, other information or instructions shall be required of the Holder to exercise this Purchase Warrant. The Company shall honor exercises of this Purchase Warrant and shall deliver Shares underlying this Purchase Warrant in accordance with the terms, conditions and time periods set forth herein.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant,

pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Company's transfer agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered

to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification. For the purposes of clarification, the Exercise Price of this Warrant will not be adjusted in the event that the Company or any Subsidiary thereof, as applicable, sells or grants any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any Common Stock or Common Stock Equivalents, at an effective price per share less than the Exercise Price then in effect.

b) [RESERVED]

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend (other than cash dividends) or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable by holders of Common Stock as a result of such Fundamental Transaction for each share of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any

limitation in Section 2(c) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly mail to the Holder a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of

the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed a notice to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to provide such notice or any defect therein shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of its Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Pursuant to FINRA Rule 5110(e)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days (with the understanding that the Holder has agreed to extend this period to one (1) year) immediately following the date of commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

- i. by operation of law or by reason of reorganization of the Company;
- ii. to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;
- iii. if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered;
- iv. that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

- v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction, any applicable securities laws and the conditions set forth in Section 4(d), this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date the Holder delivers an assignment form to the Company assigning this Warrant full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Registration Rights.

5.1 Demand Registration.

5.1.1 Grant of Right. The Company, upon written demand (a “Demand Notice”) of the Holder(s) of at least 51% of the Warrants and/or the underlying Warrant Shares (“Majority Holders”), agrees to register, on one occasion, all or any portion of the Warrant Shares underlying the Warrants (collectively, the “Registrable Securities”). On such occasion, the Company will file a registration statement with the Commission covering the Registrable Securities within thirty (30) days after receipt of a Demand Notice and use its commercially reasonable efforts to have the registration statement declared effective promptly thereafter, subject to compliance with review by the Commission; provided, however, that the Company shall not be required to comply with a Demand Notice if the Company has filed a registration statement with respect to which the Holder is entitled to piggyback registration rights pursuant to Section 5.2 hereof and either: (i) the Holder has elected to participate in the offering covered by such registration statement or (ii) if such registration statement relates to an underwritten primary offering of securities of the Company, until the offering covered by such registration statement has been withdrawn or until thirty (30) days after such offering is consummated. The sole demand for registration may be made at any time beginning on the Initial Exercise Date and expiring on the fifth anniversary of the Commencement Date. The Company covenants and agrees to give written notice of its receipt of any Demand Notice by any Holder(s) to all other registered Holders of the Warrants and/or the Registrable Securities within ten (10) days after the date of the receipt of any such Demand Notice.

5.1.2 Terms. The Company shall bear all fees and expenses attendant to the registration of the Registrable Securities pursuant to Section 5.1.1, but the Holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. The Company agrees to use its commercially reasonable efforts to cause the filing required herein to become effective promptly and to qualify or register the Registrable Securities in such States as are reasonably requested by the Holder(s); provided, however, that in no event shall the Company be required to register the Registrable Securities in a State in which such registration would cause: (i) the Company to be obligated to register or license to do business in such State or submit to general service of process in such State, or (ii) the principal stockholders of the Company to be obligated to escrow their shares of capital stock of the Company. The Company shall cause any registration statement filed pursuant to the demand right granted under Section 5.1.1 to remain effective for a period of at least twelve (12) consecutive months after the date that the Holders of the Registrable Securities covered by such registration statement are first given the opportunity to sell all of such securities. The Holders shall only use the prospectuses provided by the Company to sell the Warrant Shares covered by such registration statement, and will immediately cease to use any prospectus furnished by the Company if the Company advises the Holder that such prospectus may no longer be used due to a material misstatement or omission. Notwithstanding the provisions of this Section 5.1.2, the Holder shall be entitled to a demand registration under this Section 5.1.2 on only one (1) occasion and such demand registration right shall terminate on the fifth anniversary of the Commencement Date in accordance with FINRA Rule 5110(g)(8)(C).

5.2 “Piggy-Back” Registration.

5.2.1 Grant of Right. In addition to the demand right of registration described in Section 5.1 hereof, the Holder shall have the right, for a period of no more than three (3) years from the Initial Exercise Date in accordance with FINRA Rule 5110(g)(8)(D), to include the Registrable Securities as part of any other registration of securities filed by the Company (other than in

connection with a transaction contemplated by Rule 145(a) promulgated under the Securities Act or pursuant to Form S-8 or any equivalent form); provided, however, that if, solely in connection with any primary underwritten public offering for the account of the Company, the managing underwriter(s) thereof shall, in its reasonable discretion, impose a limitation on the number of Registrable Securities that may be included in the Registration Statement because, in such underwriter(s)' judgment, marketing or other factors dictate such limitation is necessary to facilitate public distribution, then the Company shall be obligated to include in such Registration Statement only such limited portion of the Registrable Securities with respect to which the Holder requested inclusion hereunder as the underwriter shall reasonably permit. Any exclusion of Registrable Securities shall be made pro rata among the Holders seeking to include Registrable Securities in proportion to the number of Registrable Securities sought to be included by such Holders; provided, however, that the Company shall not exclude any Registrable Securities unless the Company has first excluded all outstanding securities, the holders of which are not entitled to inclusion of such securities in such Registration Statement or are not entitled to pro rata inclusion with the Registrable Securities.

5.2.2 Terms. The Company shall bear all fees and expenses attendant to registering the Registrable Securities pursuant to Section 5.2.1 hereof, but the Holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. In the event of such a proposed registration, the Company shall furnish the then Holders of outstanding Registrable Securities with not less than thirty (30) days written notice prior to the proposed date of filing of such registration statement. Such notice to the Holders shall continue to be given for each registration statement filed by the Company during the three (3) year period following the Initial Exercise Date until such time as all of the Registrable Securities have been sold by the Holder. The holders of the Registrable Securities shall exercise the "piggy-back" rights provided for herein by giving written notice within ten (10) days of the receipt of the Company's notice of its intention to file a registration statement. Except as otherwise provided in this Warrant, there shall be no limit on the number of times the Holder may request registration under this Section 5.2.2; provided, however, that such registration rights shall terminate on the third anniversary of the Initial Exercise Date.

5.3 General Terms

5.3.1 Indemnification. The Company shall indemnify the Holder(s) of the Registrable Securities to be sold pursuant to any registration statement hereunder and each person, if any, who controls such Holders within the meaning of Section 15 of the Securities Act or Section 20 (a) of the Exchange Act against all loss, claim, damage, expense or liability (including all reasonable attorneys' fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which any of them may become subject under the Securities Act, the Exchange Act or otherwise, arising from such registration statement but only to the same extent and with the same effect as the provisions pursuant to which the Company has agreed to indemnify the Underwriters contained in Section 5.1 of the Underwriting Agreement. The Holder(s) of the Registrable Securities to be sold pursuant to such registration statement, and their successors and assigns, shall severally, and not jointly, indemnify the Company, against all loss, claim, damage, expense or liability (including all reasonable attorneys' fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which they may become subject under the Securities Act, the Exchange Act or otherwise, arising from information furnished by or on behalf of such Holders, or their successors or assigns, in writing, for specific inclusion in such registration statement to the same extent and with the same effect as the provisions contained in Section 5.2 of the Underwriting Agreement pursuant to which the Underwriters have agreed to indemnify the Company.

5.3.2 Exercise of Warrants. Nothing contained in this Warrant shall be construed as requiring the Holder(s) to exercise their Warrants prior to or after the initial filing of any registration statement or the effectiveness thereof.

5.3.3 Documents Delivered to Holders. The Company shall furnish to each Holder participating in any of the foregoing offerings and to each underwriter of any such offering, if any, a signed counterpart, addressed to such Holder or underwriter, of: (i) an opinion of counsel to the Company, dated the effective date of such registration statement (and, if such registration includes an underwritten public offering, an opinion dated the date of the closing under any underwriting agreement related thereto), and (ii) a “cold comfort” letter dated the effective date of such registration statement (and, if such registration includes an underwritten public offering, a letter dated the date of the closing under the underwriting agreement) signed by the independent registered public accounting firm which has issued a report on the Company’s financial statements included in such registration statement, in each case covering substantially the same matters with respect to such registration statement (and the prospectus included therein) and, in the case of such accountants’ letter, with respect to events subsequent to the date of such financial statements, as are customarily covered in opinions of issuer’s counsel and in accountants’ letters delivered to underwriters in underwritten public offerings of securities. The Company shall also deliver promptly to each Holder participating in the offering requesting the correspondence and memoranda described below and to the managing underwriter, if any, copies of all correspondence between the Commission and the Company, its counsel or auditors and all memoranda relating to discussions with the Commission or its staff with respect to the registration statement and permit each Holder and underwriter to do such investigation, upon reasonable advance notice, with respect to information contained in or omitted from the registration statement as it deems reasonably necessary to comply with applicable securities laws or rules of FINRA. Such investigation shall include access to books, records and properties and opportunities to discuss the business of the Company with its officers and independent auditors, all to such reasonable extent and at such reasonable times as any such Holder shall reasonably request.

5.3.4 Underwriting Agreement. The Company shall enter into an underwriting agreement with the managing underwriter(s), if any, selected by any Holders whose Registrable Securities are being registered pursuant to this Section 5, which managing underwriter shall be reasonably satisfactory to the Company. Such agreement shall be reasonably satisfactory in form and substance to the Company, each Holder and such managing underwriters, and shall contain such representations, warranties and covenants by the Company and such other terms as are customarily contained in agreements of that type used by the managing underwriter. The Holders shall be parties to any underwriting agreement relating to an underwritten sale of their Registrable Securities and may, at their option, require that any or all the representations, warranties and covenants of the Company to or for the benefit of such underwriters shall also be made to and for the benefit of such Holders. Such Holders shall not be required to make any representations or warranties to or agreements with the Company or the underwriters except as they may relate to such Holders, their Warrant Shares and their intended methods of distribution.

5.3.5 Documents to be Delivered by Holder(s). Each of the Holder(s) participating in any of the foregoing offerings shall furnish to the Company a completed and executed questionnaire provided by the Company requesting information customarily sought of selling security holders.

5.3.6 Damages. Should the registration or the effectiveness thereof required by Sections 5.1 and 5.2 hereof be delayed by the Company or the Company otherwise fails to comply with such provisions, the Holder(s) shall, in addition to any other legal or other relief available to the Holder(s), be entitled to obtain specific performance or other equitable (including injunctive) relief against the threatened breach of such provisions or the continuation of any such breach, without the necessity of proving actual damages and without the necessity of posting bond or other security.

Section 6. Miscellaneous.

- a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i).
- b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.
- c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then, such action may be taken or such right may be exercised on the next succeeding Trading Day.
- d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions

as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

- e) **Jurisdiction.** All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Underwriting Agreement.
- f) **Restrictions.** The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.
- g) **Nonwaiver and Expenses.** No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.
- h) **Notices.** Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Underwriting Agreement.
- i) **Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.
- j) **Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

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- k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.
- l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.
- m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.
- n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

INHIBIKASE THERAPEUTICS, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: INHIBIKASE THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please register and issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number or by physical delivery of a certificate to:

(4) Accredited Investor. If the Warrant is being exercised via cash exercise, the undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [] all of or [] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned
to

_____ whose address is
_____.

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

Troutman Pepper Hamilton Sanders LLP
875 Third Avenue
New York, New York 10022



troutman.com

June 11, 2021

Inhibikase Therapeutics, Inc.
3350 Riverwood Parkway SE, Suite 1900
Atlanta, GA 30339

Re: Underwritten Public Offering

Ladies and Gentlemen:

We have acted as counsel to Inhibikase Therapeutics, Inc., a Delaware corporation (the "**Company**"), in connection with the preparation of the Registration Statement on Form S-1 filed by the Company with the Securities and Exchange Commission (the "**Commission**") on June 11, 2021 (the "**Registration Statement**") pursuant to the requirements of the Securities Act of 1933, as amended (the "**Act**"). The Registration Statement relates to the registration under the Act (the "**Offering**") of (i) up to \$51,980,000 of shares (including up to \$6,780,000 of shares for the purpose of covering over-allotments) (the "**Common Shares**") of the Company's common stock, par value \$0.001 per share (the "**Common Stock**"), as such number of Common Shares may be modified by a subsequent amendment to the Registration Statement, and (ii) up to \$2,825,000 of shares of Common Stock (the "**Warrant Shares**") issuable upon exercise of warrants (the "**Representative's Warrants**"), as such number of Representative's Warrants and Warrant Shares may be modified by a subsequent amendment to the Registration Statement, in an underwritten public offering pursuant to an underwriting agreement (the "**Underwriting Agreement**") substantially in the form filed as an exhibit to the Registration Statement to be entered into by and between the Company and ThinkEquity, a Division of Fordham Financial Management, Inc., as representative of the underwriters listed in Schedule I thereto.

In our capacity as counsel, you have requested that we render the opinions set forth in this letter and we are furnishing this opinion letter to you pursuant to the requirements of Item 601(b)(5) of Regulation S-K under the Act.

In connection herewith, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Registration Statement as filed with the Commission; (ii) the form of Underwriting Agreement filed as Exhibit 1.1 to the Registration Statement; (iii) the form of representative's warrant filed as Exhibit 4.19 to the Registration Statement; (iv) the Company's certificate of incorporation, as amended to date; (v) the Company's bylaws, as amended to date; (vi) resolutions of the board of directors of the Company (the "**Board**") relating to the Offering and; (vii) such other documents as we have deemed necessary or appropriate for purposes of rendering the opinion set forth herein.

In rendering the opinions set forth below, we have assumed that (i) all information contained in all documents reviewed by us is true and correct; (ii) all signatures on all documents examined by us are genuine; (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents; and (iv) any certificates representing securities to be issued pursuant to the Offering, as applicable, will be duly executed and delivered. As to any facts material to the opinions expressed herein, which were not independently established or verified, we have relied upon statements and representations of officers and other representatives of the Company and others.

Based upon the foregoing, and having due regard for such legal considerations as we deem relevant, we are of the opinion that:

1. The Common Shares have been duly authorized and, when issued and delivered by the Company in accordance with and in the manner described in the Registration Statement and the terms of the Underwriting Agreement and upon receipt by the Company of the consideration therefor provided therein, will be validly issued, fully paid and non-assessable;

2. The Representative's Warrants have been duly authorized and, when duly executed and delivered by the Company in accordance with and in the manner described in the Registration Statement and the terms of the Underwriting Agreement and upon receipt by the Company of the consideration therefor provided therein, will constitute valid and binding agreements of the Company under the laws of Delaware enforceable against the Company in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and similar laws affecting creditors' rights generally and equitable principles of general applicability; and

3. The Warrant Shares have been duly authorized and, if issued upon exercise of the Representative's Warrants against payment therefor in accordance with the terms of the Representative's Warrants, would be validly issued, fully paid and non-assessable.

The foregoing opinions are limited to the substantive laws of the State of Delaware and we do not express any opinion herein concerning any other law. We express no opinion as to compliance with any federal or state securities laws, including the securities laws of the State of Delaware or as to federal or state laws regarding fraudulent transfers. We assume no obligation to supplement this opinion if any applicable law changes after the date hereof or if we become aware of any fact that might change the opinion expressed herein after the date hereof.

We hereby consent to the filing of this opinion as a part of the Registration Statement and to the reference of our firm under the caption "Legal Matters." In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Troutman Pepper Hamilton Sanders LLP
Troutman Pepper Hamilton Sanders LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the inclusion in this Registration Statement of Inhibikase Therapeutics, Inc. on Form S-1 of our report, which includes an explanatory paragraph related to Inhibikase Therapeutics, Inc.'s ability to continue as a going concern, dated March 31, 2021, on our audits of the financial statements of Inhibikase Therapeutics, Inc. as of December 31, 2020 and 2019 and for the years then ended. We also consent to the reference to our firm under the heading "Experts".

/s/ CohnReznick LLP

Holmdel, New Jersey
June 11, 2021