Filed Pursuant to Rule 424(b)(4)
Registration No. 333-232273

PROSPECTUS

Neuralstem, Inc.

416,315 Shares of Common Stock
416,315 Series M Common Stock Purchase Warrants
416,315 Series N Common Stock Purchase Warrants
and
2,361,462 Series O Pre-Funded Common Stock Purchase Warrants
2,361,462 Series M Common Stock Purchase Warrants
2,361,462 Series N Common Stock Purchase Warrants

We are offering 416,315 of units (the "Units"), each Unit comprised of one share of common stock, one Series M common stock purchase warrant ("Series M warrant") to purchase one share of common stock, and one Series N common stock purchase warrant ("Series N warrant") to purchase one share of common stock (and the shares issuable from time to time upon exercise of the Series M warrants and Series N warrants) at a public offering price per Unit of $2.70 pursuant to this prospectus. The Units will not be certificated or issued as a stand-alone security and the shares of common stock, Series M warrants and Series N warrants comprising the Units are immediately separable and will be issued separately in this offering. Each Series M warrant will have an exercise price of $2.70 per share, will be exercisable upon issuance and will expire on December 31, 2020. Each Series N warrant will have an exercise price of $2.70 per share, will be exercisable upon issuance and will expire five years from the date of issuance.

We are also offering 2,361,462 Prefunded Units (as defined below) to those purchasers, whose purchase of shares of common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, the opportunity to purchase, in lieu of Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock. Each prefunded unit (the "Prefunded Units") is comprised of one Series O prefunded warrant (the "Series O pre-funded warrants"), one Series M warrant to purchase one share of common stock, and one Series N warrant to purchase one share of common stock (and the shares issuable from time to time upon exercise of the Series O pre-funded warrants, Series M warrants and Series N warrants) at a public offering price of $2.6999, which is the public offering price per Unit minus $0.0001. Each Series O pre-funded warrant will have an exercise price of $0.0001. The Series O pre-funded warrants will be exercisable upon issuance and may be exercised at any time until all of the Series O pre-funded warrants are exercised in full. The Prefunded Unit will not be certificated or issued as a stand-alone security and the Series O pre-funded warrants, Series M warrants and Series N warrants comprising the Prefunded Units are immediately separable and will be issued separately in this offering. Each purchase of Prefunded Units in this offering will reduce the number of Units in this offering on a one-for-one basis.

Our common stock is currently listed on the Nasdaq Capital Market under the symbol "CUR." On July 24, 2019, the last reported sale price of our common stock was $5.00 per share. All share, warrant, and pre-funded warrant numbers are based on a public offering price of $2.70 per Unit and $2.6999 per Prefunded Unit. In furtherance of our plan to regain compliance with the continued listing requirements of the Nasdaq Capital Market, on July 17, 2019 we effected a 1-for-20 reverse stock split of our outstanding common stock. All share numbers and per share prices in this prospectus have been adjusted to reflect the reverse stock split.

Investing in our common stock is highly speculative and involves a high degree of risk. You should consider carefully the risks and uncertainties in the section entitled "Risk Factors" beginning on page 4 of this prospectus before investing in our common stock.

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

	Per Unit	Per Pre-Funded Unit	Total
Public offering price (1)	$ 2.70	$ 2.6999	$ 7,499,762
Underwriting Discounts and commissions (2)	$ 0.216	$ 0.216	$ 600,000
Proceeds to us, before expenses	$ 2.484	$ 2.4839	$ 6,899,762

(1) The public offering price and underwriting discounts and commissions correspond to (x) with respect to each Unit, a public offering price per share of $2.6999, and a public offering price per combination of one Series M warrant and one Series N warrant of $0.0001 (y) with respect to each Prefunded Unit, a public offering price per Series O pre-funded warrant of $2.6998, and a public offering price per combination of one Series M warrant and one Series N warrant of $0.0001.

(2) In addition, we have agreed to reimburse the representative for certain offering-related expenses, and to issue the representative warrants to purchase a number of shares of common stock equal to 8% of the sum of the number of shares of common stock and the number of shares underlying the Series O pre-funded warrants sold in this offering. We have also agreed to pay the representative a management fee of 1% of the gross proceeds raised in the offering. The underwriters will receive compensation in addition to the discounts and commissions. See “Underwriting” for a description of compensation payable to the underwriters.

The offering is being underwritten on a firm commitment basis. We have granted the underwriters a 45-day option to purchase up toan additional 416,666 shares and/or 416,666 warrant combinations (each warrant combination is comprised of one Series M warrant and one Series N warrant), in any combination thereof, from us at the public offering price per share or per warrant combination, less underwriting discounts and commissions. The shares and/or Series M warrants and Series N warrants in the warrant combinations issuable upon exercise of this option are identical to those offered by this prospectus and have been registered under the registration statement of which this prospectus forms a part. If the underwriters exercise the option in full, the total discount and commission will be $690,000 and the total net proceeds, before expenses, to us will be $7,934,760.

The underwriters expect to deliver our securities to purchasers in the offering on or about July 30 2019.

H.C. Wainwright & Co.

The date of this prospectus is July 25, 2019

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Please read this prospectus carefully. It describes our business, our financial condition and our results of operations. We have prepared this prospectus so that you will have the information necessary to make an informed investment decision.

You may rely only on the information contained in this prospectus. We have not, and the underwriters have not, authorized anyone to provide information or to make representations not contained in this prospectus. This prospectus is neither an offer to sell, nor a solicitation of an offer to buy, these securities in any jurisdiction where an offer or solicitation would be unlawful. Neither the delivery of this prospectus, nor any sale made under this prospectus, means that the information contained in this prospectus is correct as of any time after the date of this prospectus. This prospectus may be used only where it is legal to offer and sell these securities.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus we may provide to you in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus and any such free writing prospectus outside of the United States.

ABOUT THIS PROSPECTUS

The registration statement we filed with the Securities and Exchange Commission (the "SEC") includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus, the related exhibits filed with the SEC, and the documents incorporated by reference herein before making your investment decision. You should rely only on the information provided in this prospectus and the documents incorporated by reference herein or any amendment thereto. In addition, this prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find Additional Information."

We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus, the documents incorporated by reference herein or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The information contained in this prospectus, the documents incorporated by reference herein or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus we may provide to you in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus and any such free writing prospectus outside of the United States.

This prospectus is an offer to sell only the securities offered hereby, and only under circumstances and in jurisdictions where it is lawful to do so. We are not, and the underwriters are not, making an offer to sell these securities in any state or jurisdiction where the offer or sale is not permitted.

All other trademarks, trade names and service marks appearing in this prospectus or the documents incorporated by reference herein are the property of their respective owners. Use or display by us of other parties' trademarks, trade dress or products is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owner. Solely for convenience, trademarks, tradenames and service marks referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and trade names.

USE OF MARKET AND INDUSTRY DATA

This prospectus includes market and industry data that has been obtained from third party sources, including industry publications, as well as industry data prepared by our management on the basis of its knowledge of and experience in the industries in which we operate (including our management's estimates and assumptions relating to such industries based on that knowledge). Management's knowledge of such industries has been developed through its experience and participation in these industries. While our management believes the third party sources referred to in this prospectus are reliable, neither we nor our management have independently verified any of the data from such sources referred to in this prospectus or ascertained the underlying economic assumptions relied upon by such sources. Internally prepared and third party market forecasts, in particular, are estimates only and may be inaccurate, especially over long periods of time. In addition, the placement agents have not independently verified any of the industry data prepared by management or ascertained the underlying estimates and assumptions relied upon by management. Furthermore, references in this prospectus to any publications, reports, surveys or articles prepared by third parties should not be construed as depicting the complete findings of the entire publication, report, survey or article. The information in any such publication, report, survey or article is not incorporated by reference in this prospectus.

PROSPECTUS SUMMARY

This summary highlights information contained throughout this prospectus and is qualified in its entirety by reference to the more detailed information and financial statements in this prospectus and related notes included elsewhere herein. This prospectus contains forward-looking statements, which involves risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under "Cautionary Note Regarding Forward-Looking Statements" and under "Risk Factors" and elsewhere in this prospectus. Since this is only a summary, it does not contain all of the information that may be important to you in making your investment decision. You should carefully read the more detailed information contained in this prospectus, including our financial statements in this prospectus and related notes. Our business involves significant risks. You should carefully consider the information under the heading "Risk Factors" beginning on page 4 of this prospectus.

As used in this prospectus, unless context otherwise requires, the words "we," "us," "our," the "Company" and "Neuralstem" refer to Neuralstem, Inc. Also, any reference to "common stock" refers to our common stock, $0.01 par value per share. Any reference to "Series A Preferred Stock" or "Preferred Stock" refers to our Series A 4.5% Convertible Preferred Stock.

On July 17, 2019, we completed a one-for-twenty reverse stock split of our common stock. All share and per share information in this report has been adjusted to reflect the reverse stock split.

Our Company

We are primarily focused on the research and development of nervous system therapies based on our proprietary human neural stem cells and our small molecule compounds with the ultimate goal of gaining approval from the United States Food and Drug Administration ("FDA"), and its international counterparts, to market and commercialize such therapies. Recently, we have also began an in-licensing and acquisition strategy in which we are evaluating novel therapeutics with the potential to be complimentary to our current technologies or that could benefit from our development experience with the goal of developing such technologies for commercialization.

Our patented technology platform has three core components:

- Over 300 lines of human, regionally specific neural stem cells, some of which have the potential to be used to treat serious or life-threatening diseases through direct transplantation into the central nervous system;
- Proprietary screening capability – our ability to generate human neural stem cell lines provides a platform for chemical screening and discovery of novel compounds against nervous system disorders; and
- Small molecules that resulted from Neuralstem's neurogenesis screening platform that may have the potential to treat wide variety of nervous system conditions.

To date, our technology platform has produced two lead assets in clinical development: our NSI-566 stem cell therapy program and our NSI-189 small molecule program.

We believe our technology, in combination with our expertise, and established collaborations with major research institutions, could facilitate the development and commercialization of products for use in the treatment of a wide array of nervous system disorders including neurodegenerative conditions and regenerative repair of acute and chronic disease.

In-licensing or Acquisition Strategy

We have initiated an in-licensing or acquisition strategy to further expand our product pipeline. Our in-licensing strategy consists of evaluating early clinical or late preclinical stage opportunities in therapeutic areas that can benefit from our current product candidates or core expertise in drug development. Such in-licensing or acquisition opportunities may be in stem cell related technologies, CNS or in other therapeutic areas. We believe that this element of our corporate strategy could diversify the risks inherent in focusing on limited therapeutic areas and could increase our probability of commercial success.

Clinical Programs

We have devoted our efforts and financial resources primarily to the pre-clinical and clinical development of our small molecule compounds and our stem cell therapeutics. Below is a description of our most advanced clinical programs.

Based on our current cash position, we have greatly curtailed our development efforts with regard to our pre-clinical and clinical studies except with respect to our exploratory phase 2 study of NSI-566 for the treatment of Ischemic Stroke (the results of which will not be able to be used in connection with any regulatory filing in any territory) and studies that are being funded by grants. Additionally, we have increased our focus and efforts on our in-licensing and acquisition strategy that we announced earlier this year. In the event we are able to secure adequate additional financing, we will review existing programs with regard to re-initiating active development.

Our Technologies

Stem Cells

From a therapeutic perspective, our stem cell-based technology enables the isolation and large-scale expansion of regionally specific, human neural stem cells from all areas of the developing human brain and spinal cord thus enabling the generation of physiologically relevant human neurons of different types. We believe that our stem cell technology will enable the replacement or supplementation of malfunctioning or dead cells thereby creating a neurotrophic environment that offers protection to neural tissue as a way to treat disease and injury. Many significant and currently untreatable human diseases arise from the loss or malfunction of specific cell types in the body. Our focus is the development of effective methods to generate replacement cells from neural stem cells. We believe that creating a neurotrophic environment by replacing damaged, malfunctioning or dead neural cells with fully functional ones may be a useful therapeutic strategy in treating many diseases and conditions of the central nervous system.

Our Proprietary and Novel Screening Platform

Our human neural stem cell lines form the foundation for functional cell-based assays used to screen for small molecule compounds that can impact biologically relevant outcomes such as neurogenesis, synapse formation, and protection against toxic insults. We have developed over 300 unique stem cell lines representing multiple different regions of the developing brain and spinal cord at multiple different time points in development, enabling the generation of physiologically relevant human neural cells for screening, target validation, and mechanism-of-action studies. This platform provides us with a unique and powerful tool to identify new chemical entities to treat a broad range of nervous system conditions. NSI-189 was discovered using our stem cell-based screening platform.

Small Molecule Pharmaceutical Compounds.

Utilizing our proprietary stem cell-based screening capability, we have discovered and patented a series of small molecule compounds. We believe our low molecular weight organic compounds can efficiently cross the blood/brain barrier. In mice, research indicated that the small molecule compounds both stimulate neurogenesis of the hippocampus and increase its volume. We believe the small molecule compounds may promote synaptogenesis and neurogenesis in the human hippocampus thereby providing therapeutic benefits in indications such as MDD and may also provide clinical benefit in indications such as Angelman Syndrome, Diabetic Neuropathy, Cognition, Stroke and Radiation Induced Cognitive Deficit.

Intellectual Property

We believe that we have developed and maintain a strong portfolio of patents and patent applications that form the proprietary base for our research and development efforts. We own or exclusively license 20 United States issued and pending patents and over 60 foreign issued and pending patents in the field of regenerative medicine, related to our stem cell technologies as well as our small molecule compounds. Our issued patents have expiration dates ranging from 2023 through 2035.

Reverse Stock Split

On July 17, 2019, in furtherance of our plan to regain compliance with the continued listing standards of the Nasdaq Capital Market, we effected a 1-for-20 reverse stock split of our outstanding common stock.

Cash Position as of June 30, 2019

As of June 30, 2019, our cash and cash equivalents were approximately $2.2 million.

Corporate Information

We were incorporated in Delaware in 2001. Our principal executive offices are located at 20271 Goldenrod Lane, Germantown, Maryland 20876, and our telephone number is (301) 366-4841. Our website is located at www.neuralstem.com.

The reference to our web address does not constitute incorporation by reference of the information contained at this site into this prospectus.

The Offering

Securities offered	Units consisting of an aggregate of 416,315 shares of our common stock, Series M warrants to purchase 416,315 shares of common stock, and Series N warrants to purchase 416,315 shares of common stock; and 2,361,462 Prefunded Units consisting of an aggregate of 2,361,462 Series O pre-funded warrants to purchase up to 2,361,462 shares of common stock, Series M warrants to purchase up to 2,361,462 shares of common stock, and Series N warrants to purchase up to 2,361,462 shares of common stock.
Shares, Series M warrants, and Series N Warrants	The shares, Series M warrants and Series N warrants issued in the Units will be issued and sold to purchasers at the ratio of one to one, but the shares, Series M warrants, and Series N warrants will be issued separately and separately transferable immediately upon issuance. Each Series M warrant will have an exercise price of $2.70 per share, will be exercisable upon issuance and will expire on December 31, 2020. Each Series N warrant will have an exercise price of $2.70 per share, will be exercisable upon issuance and will expire five years from the date of issuance. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the Series M warrants and Series N warrants included in the Units.
Series O pre-funded warrants, Series M warrants and Series N warrants	I f the issuance of shares of our common stock to a purchaser in this offering would result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, then such purchaser may purchase, if it so chooses, in lieu of Units that would result in ownership of 4.99% (or at the election of the purchaser, 9.99%) of our outstanding common stock, Prefunded Units, each consisting of one (1) Series O pre-funded warrant to purchase one (1) share of common stock, one Series M warrant to purchase one share of common stock, and one Series N warrant to purchase one share of common stock for a purchase price per Prefunded Unit equal to the public offering price per Unit minus $0.0001. Each Series O pre-funded warrant will have an exercise price of $0.0001 per share, will be exercisable upon issuance and will expire upon exercise in full. The Series O pre-funded warrants, Series M warrants and Series N warrants issued in the Prefunded Units will be issued and sold to purchasers in the ratio of one to one, but the Series O pre-funded warrants, Series M warrants, and Series N warrants will be issued separately and separately transferable immediately upon issuance. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of these Series O pre-funded warrants, Series M warrants, and Series N warrants.
Use of proceeds	We intend to use the net proceeds for the further development of our stem cell and small molecule assets, the advancement of the Company's acquisition and in-licensing strategy and general corporate purposes. See the "Use of Proceeds" section of this prospectus on page 20.
Common stock outstanding before this offering	910,253 shares
Common stock to be outstanding after this offering (1)	3,688,030 shares, based on 416,315 Units issued in this offering and including 2,361,462 shares issuable upon the full exercise of the Series O Prefunded warrants issued in this offering, and assuming no exercise of the underwriter option to purchase additional shares and/or warrant combinations.
Option to purchase additional securities	Up to 416,666 shares of common stock and/or 416,666 warrant combinations, in any combination thereof, at the public offering price per share and per warrant combination, minus underwriting discounts and commissions, on the cover page of this prospectus.
Risk Factors	You should read the "Risk Factors" section of this prospectus beginning on page 4 for a discussion of factors you should consider carefully before deciding whether to purchase our securities.
Nasdaq Capital Market Trading Symbol	Our common stock is currently listed on the Nasdaq Capital Market under the symbol "CUR." There is no established trading market for the Series M warrants, Series N warrants, or the Series O pre-funded warrants.

(1) The number of shares of our common stock that will be outstanding immediately after this offering is based on 910,253 shares outstanding as of March 31, 2019 and excludes the following:

- 172,310 shares issued since March 31, 2019 (including 155,496 shares issued pursuant to the conversion of 800,000 shares of Series A Preferred 4.5% Convertible Preferred Stock);
- 38,874 shares underlying 200,000 outstanding Series A 4.5% Convertible Preferred Stock;

- 552,836 shares issuable upon the exercise, or conversion as applicable, of outstanding options, restricted stock units (including those issued under our equity compensation plans) and warrants having exercise price, as applicable, ranging from $6.00 to $1,102.40 per share and a weighted average exercise price of $65.05 per share;

- 172,919 shares reserved for future issuances and grants pursuant to our equity incentive plans.

- Shares issuable upon the exercise of (i) 2,777,777 Series M warrants, (ii) 2,777,777 Series N warrants, and (iii) 222,223 representative warrants to be issued in the offering described in this registration statement.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this prospectus, including our financial statements and related notes, before purchasing our common stock. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently consider immaterial may also adversely affect our business. We have attempted to identify below the major factors that could cause differences between actual and planned or expected results, but we cannot assure you that we have identified all such factors.

If any of the following events were to occur, our business, financial condition and results of operations could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you could lose your entire investment.

Risks Relating to this Offering

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

Because the effective price per share of common stock and related warrants being offered may be substantially higher than the net tangible book value per share of our common stock, you may experience substantial dilution to the extent of the difference between the effective offering price per share of common stock you pay in this offering and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of March 31, 2019 was approximately $2.5 million, or $2.78 per share of common stock. Net tangible book value per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of common stock outstanding. See the section entitled "Dilution" on page 21 below for a more detailed illustration of the dilution you may incur if you participate in this offering.

Because our management will have broad discretion and flexibility in how the net proceeds from this offering are used, our management may use the net proceeds in ways with which you disagree, or which may not prove effective.

We currently intend to use the net proceeds from this offering for the further development of our stem cell and small molecule assets, our acquisition and in-licensing strategy and the general working capital needs of the company, as discussed under "Use of Proceeds" in this prospectus. We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

There is no public market for the Units, the Prefunded Units, the Series M warrants, Series N Warrants or the Series O pre-funded warrants being offered by us in this offering.

There is no established public trading market for the Units, the Prefunded Units, the Series M warrants, Series N warrants, or the Series O pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply to list the Units, the Prefunded Units, Series M warrants, Series N warrants or the Series O pre-funded warrants on any national securities exchange or other nationally recognized trading system, including the Nasdaq Capital Market. Without an active market, the liquidity of the Series M warrants, Series N warrants and the Series O pre-funded warrants will be limited.

Holders of Series O pre-funded warrants, Series M warrants, or Series N warrants purchased in this offering will have no rights as common stockholders until such holders exercise their Series O pre-funded warrants, Series M warrants, or Series N warrants and acquire our common stock, except as provided in the Series O pre-funded warrants, Series M warrants or Series N warrants.

Until holders of Series O pre-funded warrants, Series M warrants, or Series N warrants acquire shares of our common stock upon exercise thereof, such holders will have no rights with respect to the shares of our common stock underlying the Series O pre-funded warrants, Series M warrants, and Series N warrants, except to the extent that holders of the Series O pre-funded warrants, Series M warrants, and Series N warrants will have certain rights to participate in distributions or dividends paid on our common stock as set forth in the Series O pre-funded warrants, Series M warrants, and Series N warrants. Upon exercise of the Series O pre-funded warrants, Series M warrants, or Series N warrants, the holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The Series M warrants and Series N warrants are speculative in nature.

The Series M warrants and Series N warrants do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price for a limited period of time, except as set forth in the Series M warrants and Series N warrants. Specifically, commencing on the date of issuance, holders of the (i) Series M warrants may exercise their right to acquire the common stock and pay an exercise price of $2.70 per whole share of common stock, subject to certain adjustments, prior to December 31, 2020 in the case of the Series M warrants, after which date any unexercised Series M warrants will expire and have no further value, and (ii) Series N warrants may exercise their right to acquire the common stock and pay an exercise price of $2.70 per whole share of common stock, subject to certain adjustments, prior to five years from the date of issuance in the case of the Series N warrants, after which date any unexercised Series N warrants will expire and have no further value. Moreover, following this offering, the market value of the Series M warrants and Series N warrants, if any, is uncertain and there can be no assurance that the market value of the Series M warrants or Series N warrants will equal or exceed their imputed offering price. The Series M warrants and Series N warrants will not be listed or quoted for trading on any market or exchange. There can be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the Series M warrants and Series N warrants, and consequently, it may not ever be profitable for holders of the Series M warrants and Series N warrants to exercise such warrants.

Based on the offering price of $2.70 per Unit, as a result of this offering, 149,136 warrants with anti-dilution price protection provisions will have their exercise prices reduced to the offering price, or in some cases, below the offering price.

Based on the offering price of $2.70 per Unit, as a result of this offering, 149,136 warrants with anti-dilution price protection provisions will have their exercise prices reduced. These warrants include (i) 26,251 warrants issued in our May 2016 registered offering, (ii) 10,385 warrants issued in our May 2016 private placement, and (iii) 112,500 warrants issued in our August 2017 registered offering. In the event that the price per share in this offering is less than the current exercise price of such warrants, each of these outstanding warrants will have their exercise prices reduced to at least the offering price of the securities sold hereunder. The warrants issued in our August 2017 offering may be reduced to the quotient of the sum of the three lowest volume weighted average prices of the common stock during the five trading day period immediately following the public announcement of the dilutive issuance divided by three which will likely result in their exercise price being below the offering price.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our common stock.

We are generally not restricted from issuing additional common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The market price of our common stock could decline as a result of sales of common stock or securities that are convertible into or exchangeable for, or that represent the right to receive, common stock after this offering or the perception that such sales could occur.

We may issue additional equity securities in the future, which may result in dilution to existing investors and investors purchasing securities in this offering.

We may seek the additional capital necessary to fund our operations through public or private equity offerings, debt financings, and collaborative and licensing arrangements. To the extent we raise additional capital by issuing equity securities, including in a debt financing where we issue convertible notes or notes with warrants and any shares of our common stock to be issued in a private placement, our stockholders may experience substantial dilution. We may, from time to time, sell additional equity securities in one or more transactions at prices and in a manner we determine. We cannot assure you that we will be able to sell shares of our common stock or other equity securities, including any Series M warrants, Series N warrants, or Series O pre-funded warrants, in any other offering at a price per fixed combination that is equal to or greater than the price per fixed combination paid by investors in this offering. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per fixed combination in this offering. If we sell additional equity securities, existing stockholders may be materially diluted. In addition, new investors could gain rights superior to existing stockholders, such as liquidation and other preferences. In addition, the exercise or conversion of outstanding options or warrants to purchase shares of capital stock may result in dilution to our stockholders upon any such exercise or conversion.

In addition, as of June 30, 2019, 190,640 shares remained available to be awarded under our equity incentive plans. Further, an aggregate of 182,296 shares of our common stock could be delivered upon the exercise or conversion of outstanding stock options or restricted stock units under our equity incentive plans. We may also issue additional options, warrants and other types of equity in the future as part of stock-based compensation, capital raising transactions, technology licenses, financings, strategic licenses, or other strategic transactions. To the extent these options are exercised, existing stockholders would experience additional ownership dilution.

Risks Relating to Our Stage of Development, Reverse Stock Split, Capital Structure and Listing of Our Securities

We may not be able to continue as a going concern if we do not obtain additional financing.

We have incurred losses since our inception and have not demonstrated an ability to generate revenues from the sales of our proposed products. Our ability to continue as a going concern is dependent on raising capital from the sale of our common stock and/or obtaining debt financing. Our cash, cash equivalents and short-term investment balance at March 31, 2019 was approximately $4.0 million. Based on our current expected level of operating expenditures, we expect to be able to fund our operations into the third quarter of 2019. Our ability to remain a going concern is wholly dependent upon our ability to continue to obtain sufficient capital to fund our operations.

Accordingly, despite our ability to secure capital in the past, there can be no assurance that additional equity or debt financing will be available to us when needed or that we may be able to secure funding from any other sources. In the event that we are not able to secure funding, we may be forced to curtail operations, delay or stop ongoing clinical trials, cease operations altogether or file for bankruptcy.

Our auditors have expressed substantial doubt about our ability to continue as a going concern.

Our auditors' report issued in connection with our December 31, 2018 financial statements stated that the Company has suffered recurring losses from operations and has an accumulated deficit that raises substantial doubt about its ability to continue as a going concern. Our current cash level raises substantial doubt about our ability to continue as a going concern past the third quarter of 2019. If we do not obtain additional capital by such time, we may no longer be able to continue as a going concern and may cease operation or seek bankruptcy protection.

If we are unable to successfully retain and integrate a new management team, our business could be harmed.

Effective January 1, 2019, we appointed Dr. Kenneth Carter as our Executive Chairman. In such role, Dr. Carter is our Principal Executive and Accounting Officer. Our success depends largely on the development and execution of our business strategy by our senior management team. We currently have a limited full-time executive team which may adversely affect our business. Additionally, the loss of any members or key personnel would likely harm our ability to implement our business strategy and respond to the rapidly changing market conditions in which we operate. There may be a limited number of persons with the requisite skills to serve in these positions, and we cannot assure you that we would be able to identify or employ such qualified personnel on acceptable terms, if at all. We cannot assure you that management will succeed in working together as a team. In the event we are unsuccessful, our business and prospects could be harmed.

Our common stock does not currently meet the continued listing requirements for the Nasdaq Capital Market and accordingly is subject to delisting.

On November 29, 2018, we received a written notice from the Nasdaq Stock Market LLC that we are not in compliance with Nasdaq Listing Rule 5550(a)(2), as the minimum bid price of our common stock had been below $1.00 per share for 30 consecutive business days. In accordance with Nasdaq Listing Rule 5810(c)(3)(A), we had a period of 180 calendar days, or until May 28, 2019, to regain compliance with the minimum bid price requirement. We did not regain compliance as of May 28, 2019, and accordingly, we received a letter from Nasdaq of its intention to delist our securities. Notwithstanding, we requested a hearing before the Nasdaq Hearings Panel, which automatically stayed further action by Nasdaq pending the completion of the hearing process. At such hearing, which is scheduled to occur on August 1, 2019, we will present a plan to regain compliance with all applicable requirements for continued listing on the Nasdaq Capital Market, including the $1.00 bid price requirement and request an extension within which to do so.

There can be no assurance that the Nasdaq Hearings Panel will accept our plan to regain compliance. If our shares lose their status on the Nasdaq Capital Market, we believe that our shares would likely be eligible to be quoted on the inter-dealer electronic quotation and trading system operated by Pink OTC Markets Inc., commonly referred to as the Pink Sheets and now known as the OTCQB market. These markets are generally considered not to be as efficient as, and not as broad as, the Nasdaq Capital Market. If our common stock is delisted, this would, among other things, substantially impair our ability to raise additional funds and could result in a loss of institutional investor interest and fewer development opportunities for us.

The liquidity of our common stock and shareholder's ability to sell their shares may be affected by our recent reverse stock split.

On May 28, 2019, we received a delisting notice from the Nasdaq Stock Market LLC as a result of our noncompliance with Nasdaq Listing Rule 5550(a)(2), as the minimum bid price of our common stock had been below $1.00 per share for 30 consecutive business days ending November 29, 2018, and our common stock failed to appreciate to a price at or above $1.00, and remain above $1.00 for 10 consecutive business days in the 180 day period thereafter. We have requested a hearing before the Nasdaq Hearings Panel to stay further action by Nasdaq pending a hearing to occur on August 1, 2019 where we will present a plan to regain compliance with the applicable requirements for continued listing on the Nasdaq Capital Market. On July 17, 2019, in order to regain compliance with the minimum bid rule, we effected a 1-for-20 reverse stock split. As a result of the reverse stock split, the liquidity of our common stock may be adversely affected given the corresponding reduction in the number of shares that will be outstanding following the reverse stock split. In addition, the reverse stock split may increase the number of stockholders who own odd lots (less than 100 shares) of our common stock, creating the potential for such stockholders to experience an increase in the cost of selling their shares and greater difficulty effecting such sales.

As a result of our recent reverse stock split, the market price of our common stock may decline.

On May 28, 2019, we received a delisting notice from the Nasdaq Stock Market LLC as a result of our noncompliance with Nasdaq Listing Rule 5550(a)(2), as the minimum bid price of our common stock had been below $1.00 per share for 30 consecutive business days ending November 29, 2018, and our common stock failed to appreciate to a price at or above $1.00, and remain above $1.00 for 10 consecutive business days in the 180 day period thereafter. On July 17, 2019, in order to regain compliance, we effected a 1-for-20 reverse stock split. Historically, after a reverse stock split, the market price of a company's shares declines.

The liquidity of our common stock and shareholder's ability to sell their shares may be affected as a result of the reverse stock split.

On May 28, 2019, we received a delisting notice from the Nasdaq Stock Market LLC as a result of our noncompliance with Nasdaq Listing Rule 5550(a)(2), as the minimum bid price of our common stock had been below $1.00 per share for 30 consecutive business days ending November 29, 2018, and our common stock failed to appreciate to a price at or above $1.00, and remain above $1.00 for 10 consecutive business days in the 180 day period thereafter. We have requested a hearing before the Nasdaq Hearings Panel to stay further action by Nasdaq pending a hearing to occur on August 1, 2019 where we will present a plan to regain compliance with the applicable requirements for continued listing on the Nasdaq Capital Market. As part of the plan, on July 17, 2019, we affected a reverse stock split of our common shares pursuant to a 1-for-20 ratio. As a result of this split, the liquidity of our common stock may be adversely affected given the corresponding reduction in the number of shares that will be outstanding following the reverse stock split. In addition, the reverse stock split may increase the number of stockholders who own odd lots (less than 100 shares) of our common stock, creating the potential for such stockholders to experience an increase in the cost of selling their shares and greater difficulty effecting such sales.

Tianjin Pharmaceuticals Group International Holdings Co., LTD, by virtue of its ownership of our securities, may be able to control the Company.

As of July 18, 2019, Tianjin Pharmaceuticals Group International Holdings Co., LTD ("Tianjin") owns 265,111 common shares or approximately 25% of our issued and outstanding common stock. Additionally, Tianjin owns 200,000 shares of our Series A Preferred Stock, convertible into an additional 38,874 shares of our common stock. If Tianjin converted its remaining shares of Series A Preferred Stock, assuming no further issuances, Tianjin would own 303,985 shares of common stock or approximately 27.29% of our common stock. Based on Tianjin's current level of stock ownership, Tianjin retains substantial ability to influence the election or removal of members of our board of directors, and thereby control our management. Tianjin also has the ability to significantly control the outcome of corporate actions requiring shareholder approval, including amending our certificate of incorporation, approving mergers or other changes of corporate control, and approving going private transactions and other extraordinary transactions, any of which may be in opposition to the best interest of the other shareholders and may negatively impact the value of your investment.

If our common stock were delisted from NASDAQ, the Company would be subject to the risks relating to penny stocks

If our common stock were to be delisted from trading on the Nasdaq Capital Market and the trading price of our common stock were below $5.00 per share on the date our common stock is delisted, trading in our common stock would also be subject to the requirements of certain rules promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These rules require additional disclosure by broker-dealers in connection with any trades involving a stock defined as a "penny stock" and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors, generally institutions. These additional requirements may discourage broker-dealers from effecting transactions in securities that are classified as penny stocks, which could severely limit the market price and liquidity of such securities and the ability of purchasers to sell such securities in the secondary market. A penny stock is defined generally as any non-exchange listed equity security that has a market price of less than $5.00 per share, subject to certain exceptions.

We could become the subject to securities litigation.

Commencing in 2017, we have seen a dramatic decrease in the price of our common stock. Plaintiffs have often initiated securities class action litigation against a company following periods of significant decreases in the market price of the company's securities. Although management is not aware of any threatened litigation, we may in the future be the target of similar litigation. Securities litigation could result in substantial costs and liabilities and could divert management's attention and resources from our operations and business.

We have a history of losses.

Since inception in 1996 through March 31, 2019, we have accumulated losses totaling approximately $216.7 million. As of March 31, 2019, we had a working capital surplus of approximately $3.3 million and stockholders' equity of approximately $3.3 million. Our net losses for the two most recent fiscal years have been approximately $4.9 million and $15.7 million for 2018 and 2017, respectively.

To date, we have not generated any revenue from the commercial sale of our proposed products. No assurances can be given as to exactly when, if at all, we will be able to fully develop, commercialize, market, sell and/or derive any, let alone material, revenues from our proposed products.

We will need to raise additional capital to continue operations.

Since our inception, we have funded our operations through the sale of our securities, credit facilities, the exercise of options and warrants, and to a lesser degree, from grants and research contracts and other revenue generating activities such as licensing. As of March 31, 2019, we had cash, cash equivalents and short-term investments on hand of approximately $4.0 million. We cannot assure you that we will be able to secure additional capital through financing transactions, including issuance of debt, licensing agreements or grants. Our inability to license our intellectual property, obtain grants or secure additional financing will materially impact our ability to fund our current and planned operations.

We have spent and expect to continue spending substantial cash in the research, development, clinical and pre-clinical testing of our proposed products with the goal of ultimately obtaining FDA approval and equivalent international approvals to market such products. We will require additional capital to conduct research and development, establish and conduct clinical and pre-clinical trials, enter into commercial-scale manufacturing arrangements and to provide for marketing and distribution of our products. We cannot assure you that financing will be available if needed. If additional financing is not available, we may not be able to fund our operations, develop or enhance our technologies, take advantage of business opportunities or respond to competitive market pressures. If we exhaust our cash reserves and are unable to secure additional financing, we may be unable to meet our obligations which could result in us initiating bankruptcy proceedings or delaying or eliminating some or all of our research and product development programs.

Risks Relating to Our Business

Following our announcements regarding the negative results from our Phase 2 study, we may not generate any future revenues from NSI-189 or its underlying intellectual property and securing additional financing may be more difficult.

On July 25, 2017, we announced that our Phase 2 study of NSI-189 in subjects with MDD failed to achieve statistical significance on its primary endpoint although a subsequent evaluation of the data appeared directionally positive with regard to certain secondary endpoints. Following these clinical results, generating any future revenues from NSI-189 or its underlying intellectual property is unlikely. Additionally, after similar results, other companies in our industry have found it more difficult to raise capital and when they have been able to raise capital, it has typically been on less favorable terms.

Our business is dependent on the successful development of our product candidates.

Our business is significantly dependent on our product candidates which are currently at different phases of pre-clinical and clinical development or that we may acquire or in-license in the future. The process to approve our product candidates is time-consuming, involves substantial expenditures of resources, and depends upon a number of factors, including the availability of alternative treatments, and the risks and benefits demonstrated in our clinical trials. Our success will depend on our ability to achieve scientific and technological advances and to translate such advances into FDA-approvable, commercially competitive products on a timely basis. Failure can occur at any stage of the process. On July 25, 2017, we announced that our Phase 2 clinical trial of NSI-189 in MDD failed to achieve statistical significance on its primary endpoint although a subsequent evaluation of the data appeared directionally positive with regard to certain secondary endpoints. If we are not successful in developing our product candidates, we will have invested substantial amounts of time and money without developing revenue-producing products. As we enter a more extensive clinical program for our product candidates, the data generated in these studies may not be as compelling as the earlier results. This, in turn, could adversely impact our ability to raise additional capital and pursue our business plan and planned research and development efforts.

Our proposed products are not likely to be commercially available for at least several years, if at all. Our development schedules for our proposed products may be affected by a variety of factors, including technological difficulties, clinical trial failures, regulatory hurdles, competitive products, intellectual property challenges and/or changes in governmental regulation, many of which will not be within our control. Any delay in the development, introduction or marketing of our product candidates could result either in such products being marketed at a time when their cost and performance characteristics would not be competitive in the marketplace or in the shortening of their commercial lives. In light of the long-term nature of our projects, the unproven technology involved, and the other factors described elsewhere in this section, there can be no assurance that we will be able to successfully complete the development or marketing of any of our proposed product candidates.

Our business relies on technologies that we may not be able to commercially develop.

We have allocated the majority of our resources to the development of our stem cell and small molecule technologies. Our ability to generate revenue and operate profitably will depend on being able to develop these technologies for human applications. These are emerging technologies that may have limited human application. On July 25, 2017, we announced that our Phase 2 clinical trial of NSI-189 in MDD failed to achieve statistical significance on its primary endpoint although a subsequent evaluation of the data appeared directionally positive with regard to certain secondary endpoints. We cannot guarantee that we will be able to develop our technologies or that if developed, our technologies will result in commercially viable products or have any commercial utility or value. We anticipate that the commercial sale of our proposed products and/or royalty/licensing fees related to our technologies, will be our primary sources of revenue. If we are unable to develop our technologies, we may never realize any significant revenue. Additionally, given the uncertainty of our technologies, product candidates and the need for government regulatory approval, we cannot predict when, or if ever, we will be able to realize revenues related to our products. As a result, we will be primarily dependent on our ability to raise capital through the sale of our securities for the foreseeable future.

Our stem cell therapy programs rely on experimental surgical devices and highly invasive experimental surgical procedures.

We are subject to the risks inherent in the use and development of experimental surgical devices and procedures. We have limited experience with medical devices and must rely on outside consultants and manufacturers to develop and seek any required approvals for the device we use in connection with our stem cell therapy program. Additionally, the surgical procedures required to administer our stem cell therapies are experimental, highly invasive and is required to be performed by highly experienced neurosurgeons who have received special training. We cannot guarantee consistent and safe performance of these devices or the surgical procedures. A surgery related adverse event may result in a clinical hold and may have long-term and damaging effects on our ability to complete development of the stem cell therapy programs, including the completion of any ongoing or planned clinical trials. Even if one or more of our programs is successful and receives marketing approval from a regulatory authority, due to the specialized nature of the device and surgical procedure, there may not be sufficient train surgeons to administer our therapy.

We are unable to predict when or if we will be able to earn significant revenues.

Given the uncertainty of our technologies and the need for government regulatory approval, we cannot predict when, or if ever, we will be able to realize revenues related to our products. Our proposed products are not likely to be commercially available for at least several or more years, if ever. Accordingly, we do not foresee generating any significant revenue during such time. As a result, we will be primarily dependent on our ability to raise capital through the sale of our securities to fund our operations for the foreseeable future.

Our reliance on third parties to manufacture and store our stem cells and small molecule compounds could adversely impact our business.

We currently outsource most of the manufacturing of our stem cells and small molecule pharmaceutical compounds to third party contractors and as such have limited ability to adequately control the manufacturing process and the safe storage thereof. Any manufacturing or storage irregularity, error, or failure to comply with applicable regulatory procedure would require us to find new third parties to outsource our manufacturing and storage responsibilities or our business would be impacted.

The manufacture of our therapeutic products is a complicated and difficult process, dependent upon substantial know-how and subject to the need for continual process improvements. In addition, our suppliers' ability to scale-up manufacturing to satisfy the various requirements of our planned clinical trials is uncertain. Additionally, many of the materials that we use to prepare our cell-based products are highly specialized, complex and available from only a limited number of suppliers. The loss of one or more of these sources would likely delay our ability to conduct planned clinical trials and otherwise adversely affect our business.

If we are unable to complete pre-clinical and clinical testing and trials or if clinical trials of our product candidates are prolonged, delayed, suspended, terminated or fail to reach their endpoints, our business and results of operations could be materially harmed.

Although we have commenced a number of trials, the ultimate outcome of the trials is uncertain. On July 25, 2017, we announced that our Phase 2 clinical trial of NSI-189 in MDD failed to achieve statistical significance on its primary endpoint although a subsequent evaluation of the data appeared directionally positive with regard to certain secondary endpoints. If we are unable to satisfactorily complete our other trials, or if such trials also yield unsatisfactory results, we may be unable to obtain regulatory approval for and commercialize our proposed products. No assurances can be given that our clinical trials will be completed or result in successful outcomes. A number of events, including any of the following, could delay the completion of our planned clinical trials and negatively impact our ability to obtain regulatory approval for, and to market and sell, a particular product candidate:

- conditions imposed on us by the FDA or any foreign regulatory authority regarding the scope or design of our clinical trials;
- delays in obtaining, or our inability to obtain, required approvals from institutional review boards, or IRBs, or other reviewing entities at clinical sites selected for participation in our clinical trials;
- insufficient supply or deficient quality of our product candidates or other materials necessary to conduct our clinical trials;
- delays in obtaining regulatory agency agreement for the conduct of our clinical trials;
- lower than anticipated enrollment and retention rate of subjects in clinical trials;
- serious and unexpected side effects experienced by patients in our clinical trials which are related to the use of our product candidates; or
- failure of our third-party contractors to meet their contractual obligations to us in a timely manner.

Clinical trials may also be delayed or terminated as a result of ambiguous or negative interim results. In addition, a clinical trial may be suspended or terminated by us, the FDA, clinical trial site IRB's, or a data safety monitoring board, or DSMB, overseeing the clinical trial at issue, or other regulatory authorities due to a number of factors. Additionally, changes in regulatory requirements and guidance may occur and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the cost, timing or successful completion of a clinical trial. We do not know whether our clinical trials will be conducted as planned, will need to be restructured or will be completed on schedule, if at all. Delays in our clinical trials will result in increased development costs for our drug candidates. In addition, if we experience delays in the completion of, or if we terminate, any of our clinical trials, the commercial prospects for our drug candidates may be harmed and our ability to generate product revenues will be jeopardized. Furthermore, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of a drug candidate. If regulatory authorities do not approve our products or if we fail to maintain regulatory compliance, we would be unable to commercialize our proposed products, and our business and results of operations could be materially harmed.

The results of pre-clinical studies and clinical trials may not be predictive of the results of our later-stage clinical trials and our proposed products may not have favorable results in later-stage clinical trials or receive regulatory approval.

Seemingly positive results from pre-clinical studies or clinical studies should not be relied upon as evidence that our clinical trials will succeed. Even if our product candidates achieve positive results in pre-clinical studies or during our Phase 1 and Phase 2 studies, we will be required to demonstrate through further clinical trials that our product candidates are safe and effective or safe, potent, and pure for an intended use in a diverse patient population before we can seek regulatory approvals for their commercial sale. There is typically an extremely high rate of attrition from the failure of product candidates as they proceed through clinical trials. If any product candidate fails to demonstrate sufficient safety and efficacy or safety, purity, and potency in any clinical trial, then we may experience potentially significant delays in, or be required to abandon development of that product candidate. Additionally, failure to demonstrate safety and efficacy or safety, purity, and potency results acceptable to the FDA in later stage trials could impair our development prospects and even prevent regulatory approval of our current and future product candidates. Any such delays or abandonment in our development efforts of any of our product candidates would materially impair our ability to generate revenues.

We are subject to numerous risks inherent in conducting clinical trials.

We outsource the management of our clinical trials to third parties. Agreements with clinical investigators and medical institutions for clinical testing and with other third parties for data management services, place substantial responsibilities on these parties that, if unmet, could result in delays in, or termination of, our clinical trials. For example, if any of our clinical trial sites fail to comply with FDA-approved good clinical practices, we may be unable to use the data gathered at those sites. If these clinical investigators, medical institutions or other third parties do not carry out their contractual duties or obligations or fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or for other reasons, our clinical trials may be extended, delayed or terminated, and we may be unable to obtain regulatory approval for, or successfully commercialize, our proposed products. Delays in recruitment, lack of clinical benefit or unacceptable side effects would delay or prevent the completion of our clinical trials.

We, IRBs, or our regulators may suspend or terminate our clinical trials for a number of reasons. We may voluntarily suspend or terminate our clinical trials if at any time we believe they present an unacceptable risk to the patients enrolled in our clinical trials or do not demonstrate clinical benefit. In addition, IRBs and regulatory agencies may order the temporary or permanent discontinuation of our clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the patients enrolled in our clinical trials.

Our clinical trial operations are subject to regulatory inspections at any time. If regulatory inspectors conclude that we or our clinical trial sites are not in compliance with applicable regulatory requirements for conducting clinical trials, we may receive reports of observations or warning letters detailing deficiencies, and we will be required to implement corrective actions. If regulatory agencies deem our responses to be inadequate, or are dissatisfied with the corrective actions we or our clinical trial sites have implemented, our clinical trials may be temporarily or permanently discontinued, we may be fined, we or our investigators may be precluded from conducting any ongoing or any future clinical trials, the government may refuse to approve our marketing applications or allow us to manufacture or market our products, and we may be criminally prosecuted.

The lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval for our proposed products, which would materially harm our business, results of operations and prospects.

We may be subject to litigation that will be costly to defend or pursue and uncertain in its outcome.

Our business may bring us into conflict with licensees, licensors, or others with whom we have contractual or other business relationships or with our competitors or others whose interests differ from ours. If we are unable to resolve these conflicts on terms that are satisfactory to all parties, we may become involved in litigation brought by or against such parties. Any litigation is likely to be expensive and may require a significant amount of management's time and attention, at the expense of other aspects of our business. The outcome of litigation is always uncertain, and in some cases, could include judgments against us which could have a materially adverse effect on our business.

We may not be able to obtain government or third-party payor coverage and reimbursement.

Our ability to successfully commercialize our product candidates, if approved, depends to a significant degree on the ability of patients to be reimbursed for the costs of such products and related treatments. We cannot assure you that reimbursement in the U.S. or in foreign countries will be available for any products developed, or, if available, will not decrease in the future, or that reimbursement amounts will not reduce the demand for, or the price of, our products. There is considerable pressure to reduce the cost of therapeutic products. Government and other third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products and by refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the FDA or other relevant authority has not granted marketing approval. Moreover, in some cases, government and other third-party payors have refused to provide reimbursement for uses of approved products for disease indications for which the FDA or other relevant authority has granted marketing approval. Significant uncertainty exists as to the reimbursement status of newly approved health-care products or novel therapies such as ours. We cannot predict what additional regulation or legislation relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect such regulation or legislation may have on our business. If additional regulations are overly onerous or expensive or if healthcare related legislation makes our business more expensive or burdensome than originally anticipated, we may be forced to significantly downsize our business plans or completely abandon the current business model.

Our products may not be profitable due to manufacturing costs and our inability to receive favorable pricing.

Our products may be significantly more expensive to manufacture than other drugs or therapies currently on the market today due to a fewer number of potential manufacturers, greater level of needed expertise and other general market conditions affecting manufacturers of our proposed products. Even if we can receive approval for the reimbursement of our proposed products the amount of reimbursement may be significantly less than the manufacturing costs of our products. Additionally, other market factors may limit the price which we can charge for our proposed products while still being competitive. Accordingly, even if we are successful in developing our proposed products, we may not be able to charge a high enough price for us to earn a profit.

We are dependent on the acceptance of our products by the healthcare community.

Our product candidates, if approved for marketing, may not achieve market acceptance since hospitals, physicians, patients or the medical community, in general, may decide not to accept and utilize these products. The products that we are attempting to develop represent substantial departures from established treatment methods and will compete with a number of more conventional therapies marketed by major pharmaceutical companies. If the healthcare community does not accept our products for any reason, our business will be materially harmed.

We depend on a limited number of employees and consultants for our continued operations and future success.

We are highly dependent on a limited number of employees and outside consultants. Although we have entered into employment and consulting agreements with these parties, these agreements can be terminated at any time. The loss of any of our employees or consultants could adversely affect our opportunities and materially harm our future prospects. In addition, we anticipate growth and expansion into areas and activities requiring additional expertise, such as clinical testing, regulatory compliance, manufacturing and marketing. We anticipate the need for additional management personnel as well as the development of additional expertise by existing management personnel. There is intense competition for qualified personnel in the areas of our present and planned activities, and there can be no assurance that we will be able to attract and retain the qualified personnel necessary for the development our business.

The employment contract of Dr. Carter contains significant anti-termination provisions which could make changes in management difficult or expensive.

We have entered into an employment agreement with Dr. Carter, our Executive Chairman and Principal Financial Officer. This agreement may require the payment of severance in the event he ceases to be employed. The provision makes the replacement of Dr. Carter very costly and could cause difficulty in effecting any required changes in management or a change in control.

Our competition has significantly greater experience and financial resources.

The biotechnology industry is characterized by rapid technological developments and a high degree of competition. We compete against numerous companies, many of which have substantially greater resources. Several such enterprises have initiated cell therapy research programs and/or efforts to treat the same diseases which we target. Given our current stage of development and resources, it may be extremely difficult for us to compete against more developed companies.

As a result, our proposed products could become obsolete before we recoup any portion of our related research and development and commercialization expenses. Competition in the biopharmaceutical industry is based significantly on scientific and technological factors. These factors include the availability of patent and other protection for technology and products, the ability to commercialize technological developments and the ability to obtain governmental approval for testing, manufacturing and marketing. We compete with specialized biopharmaceutical firms in the United States, Europe and elsewhere, as well as a growing number of large pharmaceutical companies that are applying biotechnology to their operations. Many major pharmaceutical companies have developed or acquired internal biotechnology capabilities or made commercial arrangements with other biopharmaceutical companies. These companies, as well as academic institutions and governmental agencies and private research organizations, also compete with us in recruiting and retaining highly qualified scientific personnel and consultants. Our ability to compete successfully with other companies in the pharmaceutical field will also depend to a considerable degree on the continuing availability of capital to us.

We believe that our proposed products under development and in pre-clinical testing and clinical trials will address unmet medical needs for those indications for which we are focusing our development efforts. Our competition will be determined in part by the potential indications for which our proposed products are developed and ultimately approved by regulatory authorities. Additionally, the timing of market introduction of some of our proposed products or of competitors' products may be an important competitive factor. Accordingly, the relative speed with which we can develop our proposed products, complete preclinical testing, clinical trials and approval processes and supply commercial quantities to market is expected to be important competitive factors. We expect that competition among products approved for sale will be based on various factors, including product efficacy, safety, purity, potency, reliability, availability, price and patent position.

Our outsource model depends on third parties to assist in developing and testing our proposed products.

Our strategy for the development, clinical and pre-clinical testing and commercialization of our proposed products is based on an outsource model. This model requires us to engage third parties in order to further develop our technology and products as well as for the day to day operations of our business. In the event we are not able to enter into such relationships in the future, our ability to operate and develop products may be seriously hindered or we may be required to spend considerable time and resources to bring such functions in-house. Either outcome could result in our inability to develop a commercially feasible product or in the need for substantially more working capital to complete the research in-house.

The commercialization of therapeutic products exposes us to product liability claims.

Product liability claims could result in substantial litigation costs and damage awards against us. We attempt to mitigate this risk by obtaining and maintaining appropriate insurance coverage. Historically, we have obtained liability insurance that covers our clinical trials. If we begin commercializing products, we will need to increase our insurance coverage. We may not be able to obtain insurance on acceptable terms, if at all, and the policy limits on our insurance policies may be insufficient to cover our potential liabilities.

We currently rely heavily upon third party FDA-regulated manufacturers and suppliers for our products

We currently manufacture our cells both in-house and on an outsource basis. We outsource the manufacturing of our pharmaceutical compound to third party manufacturers. We manufacture cells in-house which are not required to meet stringent FDA requirements. We use these cells in our research and collaborative programs. At present, we outsource all the manufacturing and storage of our stem cells and pharmaceuticals compound to be used in clinical testing, and which are subject to higher FDA requirements, to Charles River Laboratories, Inc., of Wilmington, Massachusetts (stem cells) and Albany Molecular Resources, Inc. (small molecule). Failure by our contract manufacturer to achieve and maintain high manufacturing standards could result in patient injury or death, product recalls or withdrawals, delays or failures in testing or delivery, cost overruns, or other problems that could seriously hurt our business. Contract manufacturers may encounter difficulties involving production yields, quality control, and quality assurance. These manufacturers are subject to ongoing periodic and unannounced inspections by the FDA and corresponding state and foreign agencies to ensure strict compliance with cGMPs, GTPs and other applicable government regulations and corresponding foreign standards; however, we do not have control over third-party manufacturers' compliance with these regulations and standards.

Because manufacturing facilities are subject to regulatory oversight and inspection, failure to comply with regulatory requirements could result in material manufacturing delays and product shortages, which could delay or otherwise negatively impact our clinical trials and product development. Moreover, we do not have quantity or volume commitment orders from these manufacturers, and we cannot assure you that the manufacturers will be able to manufacture in the quantity we require on a timely basis or at all. In the event we are required to seek alternative third-party suppliers or manufacturers, they may require us to purchase a minimum amount of materials or could require other unfavorable terms. Any such event would materially impact our business prospects and could delay the development of our products. Moreover, there can be no assurance that any manufacturer or supplier that we select will be able to supply our products in a timely or cost-effective manner or in accordance with applicable regulatory requirements or our specifications. In addition, due to the novelty of our products and product development, there can be no assurances that we would be able to find other suitable third-party FDA-regulated manufacturers on a timely basis and at terms reasonable to us. Even if we were to locate alternative manufacturers there may be delays before they are able to begin manufacturing. Failure to secure such third-party manufacturers or suppliers would materially impact our business.

We rely on third parties to conduct our clinical trials and perform data collection and analysis, which may result in costs and delays that prevent us from successfully commercializing our product candidates.

We do not have the in-house capability to conduct clinical trials for our product candidates. We rely, and will rely in the future, on medical institutions, clinical investigators, contract research organizations, contract laboratories, and collaborators to perform data collection and analysis and other aspects of our clinical trials. Our reliance on these third parties for clinical development activities results in reduced control over these activities. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. Our preclinical activities or clinical trials conducted in reliance on third parties may be delayed, suspended, or terminated if:

- the third parties do not successfully carry out their contractual duties;
- the third parties fail to meet FDA and other regulatory obligations or expected deadlines;
- we replace a third party for any reason; or
- the quality or accuracy of the data obtained by third parties is compromised due to their failure to adhere to clinical protocols, regulatory requirements, or for other reasons.

Third party performance failures may increase our development costs, delay our ability to obtain regulatory approval, and delay or prevent the commercialization of our product candidates. While we believe that there are numerous alternative sources to provide these services, in the event that we seek such alternative sources, we may not be able to enter into replacement arrangements without incurring delays or additional costs.

Risks Relating to Intellectual Property

We may not be able to withstand challenges to our intellectual property rights.

We rely on our intellectual property, including issued and applied-for patents, as the foundation of our business. Our intellectual property rights may come under challenge. No assurances can be given that our current and potential future patents will survive such challenges. These cases are complex, lengthy, expensive, and could potentially be adjudicated adversely to our interests, removing the protection afforded by an issued patent. The viability of our business would suffer if such patent protection were limited or eliminated. Moreover, the costs associated with defending or settling intellectual property claims would likely have a material adverse effect on our business and future prospects.

We may not be able to adequately protect against the piracy of the intellectual property in foreign jurisdictions.

We conduct research in countries outside of the U.S., including through our subsidiary in the People's Republic of China. Several of our competitors are located in these countries and may be able to access our technology or test results. The laws protecting intellectual property in some of these countries may not adequately protect our trade secrets and intellectual property. The misappropriation of our intellectual property may materially impact our position in the market and any competitive advantages, if any, that we may have.

We may infringe the intellectual property rights of others and may not be able to obtain necessary licenses to third-party patents and other rights.

A number of companies, universities and research institutions have filed patent applications or have received patents relating to technologies in our field. We cannot predict which, if any, of these applications will issue as patents or how many of these issued patents will be found valid and enforceable. There may also be existing issued patents on which we would infringe by the commercialization of our product candidates. If so, we may be prevented from commercializing these products unless the third party is willing to grant a license to us. We may be unable to obtain licenses to the relevant patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative non-infringing technology. If we are unable to obtain such licenses or develop non-infringing technology at a reasonable cost, our business could be significantly harmed. Also, any infringement lawsuits commenced against us may result in significant costs, divert our management's attention and result in an award against us for substantial damages, or potentially prevent us from continuing certain operations.

Risks Relating to Our Common Stock

The market price for our common shares is particularly volatile.

The market for our common shares is characterized by significant price volatility when compared to seasoned issuers, and we expect that our share price will continue to be more volatile than those of a seasoned issuer. The volatility in our share price is attributable to a number of factors. Mainly however, we are a speculative or "risky" investment due to our limited operating history, lack of significant revenues to date and the uncertainty of FDA approval. By way of example, in October of 2018, we completed a registered direct offering of 150,000 shares of our common stock and a simultaneous private placement of 150,000 common stock purchase warrants. Shortly thereafter, the market price or our common stock decreased substantially. As a consequence of this enhanced risk, more risk-adverse investors may, under the fear of losing all or most of their investment in the event of negative news or lack of progress, be more inclined to sell their shares on the market more quickly and at greater discounts than would be the case with the stock of a seasoned issuer. Additionally, in the past, plaintiffs have often initiated securities class action litigation against a company following periods of volatility in the market price of its securities. We may in the future be the target of similar litigation. Securities litigation could result in substantial costs and liabilities and could divert management's attention and resources.

The following factors may add to the volatility in the price of our common shares: actual or anticipated variations in our quarterly or annual operating results; the results of clinical trials for our product candidates; FDA's determination with respect to filings for new clinical studies, new drug applications and new indications; government regulations; announcements of significant acquisitions, strategic partnerships or joint ventures; our capital commitments; offerings of our securities and additions or departures of our key personnel. Many of these factors are beyond our control and may decrease the market price of our common shares, regardless of our operating performance. We cannot make any predictions or projections as to what the prevailing market price for our common shares will be at any time, including as to whether our common shares will sustain their current market prices, or as to what effect the sale of shares or the availability of common shares for sale at any time will have on the prevailing market price.

Future sales of our common stock could cause our stock price to fall.

In October of 2018, we completed a registered direct offering of 150,000 shares of our common stock or approximately 20% of our issued and outstanding shares, as well as a private placement of an equal number of common stock purchase warrants. Transactions that result in a large amount of newly issued shares that are readily tradable, or other events that cause current stockholders to sell shares, could place downward pressure on the trading price of our common stock. In addition, the lack of a robust trading market may require a stockholder who desires to sell a large number of shares of common stock to sell the shares in increments over time to mitigate any adverse impact of the sales on the market price of our stock. If our stockholders sell, or the market perceives that our stockholders intend to sell for various reasons, substantial amounts of our common stock in the public market, including shares issued upon the exercise of outstanding options or warrants, the market price of our common stock could fall. Sales of a substantial number of shares of our common stock may make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate. We may become involved in securities class action litigation that could divert management's attention and harm our business.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members.

As a public company, we incur significant legal, accounting and other expenses that we would not incur as a private company, including costs associated with public company reporting requirements. We also incur costs associated with the Sarbanes-Oxley Act of 2002, as amended, the Dodd-Frank Wall Street Reform and Consumer Protection Act and related rules implemented or to be implemented by the SEC and the Nasdaq. The expenses incurred by public companies generally for reporting, insurance and corporate governance purposes have been increasing. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. These laws and regulations could also make it more difficult or costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. These laws and regulations could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as our executive officers and may divert management's attention. Furthermore, if we are unable to satisfy our obligations as a public company, we could be subject to delisting of our common stock, fines, sanctions and other regulatory action and potentially civil litigation.

We have never paid a cash dividend and do not intend to pay cash dividends on our common stock in the foreseeable future.

We have never paid a cash dividend, nor do we anticipate paying cash dividends in the foreseeable future. Accordingly, any return on your investment will be as a result of the appreciation of our common stock if any.

Our anti-takeover provisions may delay or prevent a change of control, which could adversely affect the price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may make it difficult to remove our board of directors and management and may discourage or delay "change of control" transactions, which could adversely affect the price of our common stock. These provisions include, among others:

- our board of directors is divided into three classes, with each class serving for a staggered three-year term, which prevents stockholders from electing an entirely new board of directors at an annual meeting;
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors and propose matters to be brought before an annual meeting of our stockholders may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company; and
- our board of directors may, without stockholder approval, issue series of preferred stock, or rights to acquire preferred stock, that could dilute the interest of, or impair the voting power of, holders of our common stock or could also be used as a method of discouraging, delaying or preventing a change of control.

If securities or industry analysts do not publish research reports, or publish unfavorable research about our business, the price and trading volume of our common stock could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us and our business. We currently have limited research coverage by securities and industry analysts. In the event an analyst downgrades our securities the price of our securities would likely decline. If analysts cease to cover us or fails to publish regular reports on us, interest in our securities could decrease, which could cause the price of our common stock and other securities and their trading volume to decline.

Our board of directors has broad discretion to issue additional securities, which might dilute the net tangible book value per share of our common stock for existing stockholders.

We are entitled under our certificate of incorporation to issue up to 300,000,000 shares of common stock and 7,000,000 "blank check" shares of preferred stock. Shares of our blank check preferred stock provide our board of directors with broad authority to determine voting, dividend, conversion, and other rights. As of March 31, 2019, we have issued and outstanding 910,253 shares of common stock and we have 737,865 shares of common stock reserved for future grants under our equity compensation plans and for issuances upon the exercise or conversion of currently outstanding options, warrants and convertible securities. As of March 31, 2019, we had 1,000,000 shares of preferred stock issued and outstanding which are convertible into 194,369 shares of our common stock. Accordingly, as of March 31, 2019, we are entitled to issue up to 298,157,513 additional shares of common stock and 6,000,000 additional shares of "blank check" preferred stock. Our board may generally issue those common and preferred shares, or convertible securities to purchase those shares, without further approval by our shareholders. Any preferred shares we may issue will have such rights, preferences, privileges and restrictions as may be designated from time-to-time by our board, including preferential dividend rights, voting rights, conversion rights, redemption rights and liquidation provisions. It is likely that we will be required to issue a large amount of additional securities to raise capital in order to further our development and marketing plans. It is also likely that we will be required to issue a large amount of additional securities to directors, officers, employees and consultants as compensatory grants in connection with their services, both in the form of stand-alone grants or under our various stock plans. The issuance of additional securities may cause substantial dilution to our shareholders.

Risks Related to Government Regulation and Approval of our Product Candidates.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and our products may not receive regulatory approval.

The time required to obtain approval by the FDA and comparable foreign authorities is inherently unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a drug candidate's clinical development and may vary among jurisdictions. We have not 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.

Our drug candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective or safe, pure, and potent for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a BLA, NDA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; or
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

We are currently undertaking clinical trials for our lead products candidates NSI-189 and NSI-566. We cannot assure you that we will successfully complete any clinical trials in connection with such INDs. Further, we cannot predict when we might first submit any product license application (NDA or BLA) for FDA approval or whether any such product license application will be granted on a timely basis, if at all. Any delay in obtaining, or failure to obtain, such approvals could have a material adverse effect on the marketing of our products and our ability to generate product revenue.

Development of our product candidates is subject to extensive government regulation.

Our research and development efforts, as well as any future clinical trials, and the manufacturing and marketing of any products we may develop, will be subject to, and restricted by, extensive regulation by governmental authorities in the U.S. and other countries. The process of obtaining FDA and other necessary regulatory approvals is lengthy, expensive and uncertain. FDA and other legal and regulatory requirements applicable to our proposed products could substantially delay or prevent us from initiating additional clinical trials. We may fail to obtain the necessary approvals to commence clinical testing or to manufacture or market our potential products in reasonable time frames, if at all. In addition, the U.S. Congress and other legislative bodies may enact regulatory reforms or restrictions on the development of new therapies that could adversely affect the regulatory environment in which we operate or the development of any products we may develop.

A substantial portion of our research and development entails the use of stem cells obtained from human tissue. The U.S. federal and state governments and other jurisdictions impose restrictions on the acquisition and use of human tissue, including those incorporated in federal Good Tissue Practice, or "GTP," regulations. These regulatory and other constraints could prevent us from obtaining cells and other components of our products in the quantity or of the quality needed for their development or commercialization. These restrictions change from time to time and may become more onerous. Additionally, we may not be able to identify or develop reliable sources for the cells necessary for our potential products — that is, sources that follow all state and federal laws and guidelines for cell procurement. Certain components used to manufacture our stem and progenitor cell product candidates will need to be manufactured in compliance with the FDA's GMP. Accordingly, we will need to enter into supply agreements with companies that manufacture these components to GMP standards. There is no assurance that we will be able to enter into any such agreements.

Noncompliance with applicable regulatory requirements can subject us, our third party suppliers and manufacturers and our other collaborators to administrative and judicial sanctions, such as, among other things, warning letters, fines and other monetary payments, recall or seizure of products, criminal proceedings, suspension or withdrawal of regulatory approvals, interruption or cessation of clinical trials, total or partial suspension of production or distribution, injunctions, limitations on or the elimination of claims we can make for our products, refusal of the government to enter into supply contracts or fund research, or government delay in approving or refusal to approve new drug applications.

We cannot predict if or when we will be able to commercialize our products due to regulatory constraints.

Federal, state and local governments and agencies in the U.S. (including the FDA) and governments in other countries have significant regulations in place that govern many of our activities. We are, or may become, subject to various federal, state and local laws, regulations and recommendations relating to safe working conditions, laboratory and manufacturing practices, the experimental use of animals and the use and disposal of hazardous or potentially hazardous substances used in connection with its research and development work. The preclinical testing and clinical trials of our proposed products are subject to extensive government regulation that may prevent us from creating commercially viable products. In addition, our sale of any commercially viable product will be subject to government regulation from several standpoints, including manufacturing, advertising, marketing, promoting, selling, labeling and distributing. If, and to the extent that, we are unable to comply with these regulations, our ability to earn revenues, if any, will be materially and negatively impacted.

If our clinical trials fail to demonstrate that any of our product candidates are safe and effective or safe, potent, and pure for the treatment of particular diseases, the FDA may require us to conduct additional clinical trials or may not grant us marketing approval for such product candidates for those diseases.

We are not permitted to market our product candidates in the United States until we receive approval of a BLA or NDA from the FDA. Before obtaining regulatory approvals for the commercial sale of any product candidate for a target indication, we must demonstrate with evidence gathered in preclinical and well-controlled clinical trials, and, with respect to approval in the United States, to the satisfaction of the FDA and, with respect to approval in other countries, similar regulatory authorities in those countries, that the product candidate is safe and effective or safe, pure, and potent for use for that target indication and that the manufacturing facilities, processes and controls used to produce the product are compliant with applicable statutory and regulatory requirements. Our failure to adequately demonstrate the safety and effectiveness or safety, potency, and purity of any of our product candidates for the treatment of particular diseases may delay or prevent our receipt of the FDA's approval and, ultimately, may prevent commercialization of our product candidates for those diseases. The FDA has substantial discretion in deciding whether, based on the benefits and risks in a particular disease, any of our product candidates should be granted approval for the treatment of that particular disease. Even if we believe that a clinical trial or trials has demonstrated the safety and statistically significant efficacy of any of our product candidates for the treatment of a disease, the results may not be satisfactory to the FDA. Preclinical and clinical data can be interpreted by the FDA and other regulatory authorities in different ways, which could delay, limit or prevent regulatory approval. If regulatory delays are significant or regulatory approval is limited or denied altogether, our financial results and the commercial prospects for those of our product candidates involved will be harmed, and our prospects for profitability will be significantly impaired.

Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain, and subject to unanticipated delays. Despite our efforts, our drug candidates may not:

- offer improvement over existing comparable products;
- be proven safe and effective or safe, pure, and potent in clinical trials; or
- meet applicable regulatory standards.

In addition, in the course of its review of a BLA or NDA or other regulatory application, the FDA or other regulatory authorities may conduct audits of the practices and procedures of a company and its suppliers and contractors concerning manufacturing, clinical study conduct, non-clinical studies and several other areas. If the FDA and/or other regulatory authorities conducts an audit relating to a BLA, NDA or other regulatory application and finds a significant deficiency in any of these or other areas, the FDA or other regulatory authorities could delay or not approve such BLA, NDA or other regulatory application. If regulatory delays are significant or regulatory approval is limited or denied altogether, our financial results and the commercial prospects for those of our products or product candidates involved will be harmed, and our prospects for profitability will be significantly impaired.

Both before and after marketing approval, our product candidates are subject to extensive and rigorous ongoing regulatory requirements and continued regulatory review, and if we fail to comply with these continuing requirements, we could be subject to a variety of sanctions.

Both before and after the approval of our product candidates, we, our product candidates, our operations, our facilities, our suppliers, and our contract manufacturers, contract research organizations, and contract testing laboratories are subject to extensive regulation by governmental authorities in the United States and other countries, with regulations differing from country to country. In the United States, the FDA regulates, among other things, the pre-clinical testing, clinical trials, manufacturing, safety, efficacy, potency, purity, labeling, packaging, adverse event reporting, storage, record keeping, quality systems, advertising, promotion, sale and distribution of therapeutic products. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP, requirements and current good clinical practice, or cGCP, requirements for any clinical trials that we conduct post-approval. Failure to comply with applicable requirements could result in, among other things, one or more of the following actions: restrictions on the marketing of our products or their manufacturing processes, notices of violation, untitled letters, warning letters, civil penalties, fines and other monetary penalties, unanticipated expenditures, delays in approval or refusal to approve a product candidate, suspension or withdrawal of regulatory approvals, product, seizure or detention, voluntary or mandatory product recalls and related publicity requirements, interruption of manufacturing or clinical trials, operating restrictions, injunctions, import or export bans, and criminal prosecution. We or the FDA, or an institutional review board, may suspend or terminate human clinical trials at any time on various grounds, including a finding that subjects are being exposed to an unacceptable health risk.

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

If side effects are identified during the time our drug candidates are in development or after they are approved and on the market, we may choose or be required to perform lengthy additional clinical trials, discontinue development of the affected drug candidate, change the labeling of any such products, or withdraw any such products from the market, any of which would hinder or preclude our ability to generate revenues.

Undesirable side effects caused by our drug 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 or other comparable foreign authorities. Drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete a trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly. Even if any of our drug candidates receives marketing approval, as greater numbers of patients use a drug following its approval, an increase in the incidence of side effects or the incidence of other post-approval problems that were not seen or anticipated during pre-approval clinical trials could result in a number of potentially significant negative consequences, including:

- regulatory authorities may withdraw their approval of the product;
- regulatory authorities may require the addition of labeling statements, such as warnings or contradictions;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could substantially increase the costs and expenses of developing, commercializing and marketing any such drug candidates or could harm or prevent sales of any approved products.

Even if our product candidates receive regulatory approval in the United States, we may never receive approval or commercialize our products outside of the United States.

In order to market any products outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy or safety, potency, and purity. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the United States as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval would impair our ability to develop foreign markets for our drug candidates.

Our product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

We expect our stem cell product candidates to be regulated by the FDA as biologic products and we intend to seek approval for these products pursuant to the BLA pathway. The Biologics Price Competition and Innovation Act of 2009, or BPCIA, created an abbreviated pathway for the approval of biosimilar and interchangeable biologic products. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biologic products.

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

We are subject to healthcare laws, regulation and enforcement and our failure to comply with those laws could adversely affect our business, operations and financial condition.

Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business. The regulations that may affect our ability to operate include, without limitation:

- the federal Anti-Kickback Statute, which prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs;
- the federal False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government, and which may apply to entities that provide coding and billing advice to customers;
- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- the federal physician sunshine requirements under the ACA, which require manufacturers of drugs, devices, biologics, and medical supplies to report annually to the Centers for Medicare & Medicaid Services information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members; and
- HIPAA, which governs the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information.

In addition, recent healthcare reform legislation has strengthened these laws. For example, the ACA, among other things, amended the intent requirement of the Federal Anti-Kickback Statute and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it. In addition, 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.

These laws and regulations are broad in scope and they are subject to change and evolving interpretations, which could require us to incur substantial costs associated with compliance or to alter one or more of our sales or marketing practices. In addition, 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. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, the exclusion from participation in federal and state healthcare programs, imprisonment, or the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our financial results.

Failure to comply with domestic and international privacy and security laws can result in the imposition of significant civil and criminal penalties. The costs of compliance with these laws, including protecting electronically stored information from cyberattacks, and potential liability associated with failure to do so could adversely affect our business, financial condition and results of operations. We are subject to various domestic and international privacy and security regulations, including but not limited to HIPAA. HIPAA mandates, among other things, the adoption of uniform standards for the electronic exchange of information in common healthcare transactions, as well as standards relating to the privacy and security of individually identifiable health information, which require the adoption of administrative, physical and technical safeguards to protect such information. In addition, many states have enacted comparable laws addressing the privacy and security of health information, some of which are more stringent than HIPAA.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes "forward-looking" statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to our business development plans, clinical trials, regulatory reviews, timing, strategies, expectations, anticipated expenses levels, business prospects and positioning with respect to the market, business outlook, technology spending and various other matters (including contingent liabilities and obligations and changes in accounting policies, standards and interpretations) and express our current intentions, beliefs, expectations, strategies or predictions, as well as historical information. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or industry results, to be materially different from anticipated results, performance or achievements expressed or implied by such forward-looking statements. When used in this prospectus, statements that are not statements of current or historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "plan," "intend," "may," "will," "expect," "believe," "could," "anticipate," "estimate," or "continue" or similar expressions or other variations or comparable terminology are intended to identify such forward-looking statements. Although we believe that the assumptions on which the forward-looking statements contained herein are based are reasonable, any of those assumptions could prove to be inaccurate given the inherent uncertainties as to the occurrence or nonoccurrence of future events. These statements are not guarantees of future performance and involve risks and uncertainties that are difficult to predict. Our future operating results are dependent upon many factors, and our further development is highly dependent on market acceptance, which is outside its control. You should not place undue reliance on forward-looking statements. Forward-looking statements may not be realized due to a variety of factors, including, without limitation:

- our ability to manage the business despite continuing operating losses and cash outflows;
- our ability to obtain sufficient capital or a strategic business arrangement to fund our operations and expansion plans;
- our ability to build the management and human resources and infrastructure necessary to support the growth of our business;
- competitive factors and developments beyond our control;
- scientific and medical developments beyond our control;
- government regulation of our business;
- whether any of our current or future patent applications result in issued patents and our ability to obtain and maintain other rights to technology required or desirable for the conduct of our business;
- whether any potential strategic benefits of licensing transactions will be realized and whether any potential benefits from the acquisition of newly licensed technologies, if any, will be realized; and
- the other factors discussed in the "Risk Factors" section and elsewhere in this prospectus.

All forward-looking statements attributable to us are expressly qualified in their entirety by these and other factors. We undertake no obligation to update or revise these forward-looking statements, whether to reflect events or circumstances after the date initially filed, to reflect the occurrence of unanticipated events or otherwise, except to the extent required by federal securities laws. The risks discussed in this report should be considered in evaluating our business and future financial performance.

USE OF PROCEEDS

We estimate that the net proceeds of the sale of an aggregate of 2,777,777 Units and Prefunded Units that we are offering pursuant to this prospectus will be approximately $6,603,000 (or $7,627,000 if the underwriters exercise their option to purchase additional securities in full), based on the public offering price of $2.70 per Unit and Prefunded Unit and after deducting estimated underwriting discounts and commissions and estimated offering expenses of $897,000 or $998,000 (if underwriter's exercise their option to purchase additional securities in full), respectively, payable by us.

We currently intend to use the net proceeds from this offering for the further development of our stem cell and small molecule assets, advancement of the Company's acquisition and in-licensing strategy and general corporate purposes.

We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we expect to invest the net proceeds in short-term, interest-bearing, investment-grade securities.

MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS

All share and per share numbers included in this section, and elsewhere in this prospectus, give effect to the 1-for-20 reverse stock split that we completed on July 17, 2019.

Market Information

Our common stock is traded on The Nasdaq Capital Market under the symbol "CUR."

Holders

As of March 31, 2019, our common stock was held by approximately 239 record holders. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these holders.

Dividends

We have not paid any cash dividends to date and have no plans to do so in the immediate future. Additionally, we are prohibited from paying any cash dividends under the terms of certain agreements to which we are a party.

Equity Compensation Plan Information

The following table sets forth information with respect to our equity compensation plans as of December 31, 2018.

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options and Rights (a)	Weighted-Average Exercise Price for Outstanding Options and Rights (b)	Number of Securities Remaining Available for Future Issuance under Equity compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Equity compensation plans approved by security holders			
2007 Stock Plan	2,929	$ 237.00	-
2010 Equity Compensation Plan	79,467	$ 212.00	-
2019 *Equity Incentive Plan* [(1)]			
Equity compensation plans not approved by security holders			
Inducement Plan	40,000	$ 8.60	60,000
Total	122,396	$ 146.20	60,000

2019 Equity Incentive Plan

Our 2019 Equity Incentive Plan ("2019 Plan") was approved by our stockholders on June 12, 2019 and is administered by our board or our compensation committee. The 2019 Plan provides for the grant of incentive stock options, nonstatutory stock options, restricted stock, performance units, performance shares, restricted tock units, and other stock-based awards to our employees, directors, and consultants. The purpose of the 2019 Plan is to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to our employees, directors and consultants, and to promote the success of our business. Under the terms of the 2019 Plan, we initially reserved 200,000 shares of common stock, subject to an automatic increase on the first day of each calendar year by 4% of the total shares of common stock issued and outstanding on such date. The 2019 Plan further authorized the administrator to amend the exercise price and terms of certain awards thereunder.

Equity Compensation Plans Not Approved by Security Holders

Our Inducement Award Stock Option Plan ("Inducement Plan") is administered by our board or our compensation committee. The Inducement Plan is intended to be used in connection with the recruiting and inducement of senior management and employees. The issuance of awards under the Inducement Plan is at the discretion of the administrator which has the authority to determine the persons to whom any awards shall be granted and the terms, conditions and restrictions applicable to any award. Pursuant to the Inducement Plan, the Company may grant stock options for up to a total of 100,000 shares of common stock to new employees of the Company. As of December 31, 2018, 40,000 grants have been made pursuant to the Inducement Plan. The Inducement Plan is intended to qualify as an inducement plan under NASDAQ Listing Rule 5635(c)(4) and accordingly, the Company did not seek stockholders' approval.

DILUTION

Our net tangible book value as of March 31, 2019, was approximately $2.5 million, or $2.78 per share of our common stock. Net tangible book value per share of our common stock is determined by dividing total tangible assets (less total tangible liabilities) by the aggregate number of shares of our common stock outstanding as of March 31, 2019. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this public offering and the net tangible book value per share of our common stock immediately after this offering. All share and per share numbers included in this section, and elsewhere in this prospectus, give effect to the 1-for-20 reverse stock split that we completed on July 17, 2019.

After giving effect to the sale of 416,315 Units and 2,361,462 Prefunded Units at a public offering price of $2.70 per Unit and per Prefunded Unit, and assuming the exercise of all Series O Prefunded warrants contained in the Prefunded Units in this offering and assuming no exercise of any option to purchase additional securities, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2019 would have been approximately $9.1 million, or 2.48 per share, which excludes the exercise of any of the Series M warrants to purchase 2,777,777 shares of our common stock or Series N warrants to purchase 2,777,777 shares of our common stock issued to investors in this offering. This represents an immediate dilution in net tangible book value of $0.30 per share to existing stockholders and immediate dilution of $0.22 per share to investors purchasing our securities in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

Offering price per Unit (or Prefunded Unit)		$ 2.70
Net tangible book value per share as of March 31, 2019	$ 2.78	
Dilution in as adjusted net tangible book value per share attributable to purchasers in this offering	$ (0.30)	
As adjusted net tangible book value per share immediately after this offering		2.48
Dilution per share to purchasers in this offering		$ 0.22

The number of shares of our common stock to be outstanding immediately after this offering is based on 910,253 shares of our common stock outstanding as of March 31, 2019 and excludes:

- 172,310 shares issued since March 31, 2019 (including 155,496 shares issued pursuant to the conversion of 800,000 shares of Series A Preferred 4.5% Convertible Preferred Stock);
- 38,874 shares underlying 200,000 outstanding Series A 4.5% Convertible Preferred Stock;
- 552,836 shares issuable upon the exercise, or conversion as applicable, of outstanding options, restricted stock units (including those issued under our equity compensation plans) and warrants having exercise price, as applicable, ranging from $6.00 to $1,102.40 per share and a weighted average exercise price of $65.05 per share;
- 172,919 shares reserved for future issuances and grants pursuant to our equity incentive plans.
- Shares issuable upon the exercise of (i) 2,777,777 Series M warrants, (ii) 2,777,777 Series N warrants, and (iii) 222,223 representative warrants to be issued in the offering described in this registration statement.

The above illustration of dilution per share to investors participating in this offering assumes no exercise of options or warrants to purchase shares of our common stock. The exercise of any such securities will increase dilution to purchasers in this offering.

Because there is no minimum offering amount required as a condition to the closing of this offering, the dilution per share to new investors may be more than that indicated above in the event that the actual number of shares sold, if any, is less than the maximum number of shares of common stock we are offering.

CAPITALIZATION

The following table sets forth our capitalization as of March 31, 2019 on:

- an *actual basis,* and
- on *as adjusted basis* to reflect (i) our receipt of estimated net proceeds of approximately $6,603,000 from the sale of Units and Prefunded Units in this offering at a public offering price of $2.70 (assuming full exercise of the Series O prefunded warrants and assuming no exercise of the underwriters' option to purchase additional securities) and (ii) excluding the proceeds, if any, from the exercise of Series M warrants issued in this offering.

You should read this table in conjunction with "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus.

The as adjusted information set forth below is based on the public offering price of the shares of common stock and Series M warrants. You should read this information together with our consolidated financial statements and related notes incorporated by reference in this prospectus. All share and per share numbers included in this section, and elsewhere in this prospectus, give effect to 1-for-20 reverse stock split that we affected on July 17, 2019.

	As of March 31, 2019	
	Actual	As Adjusted
	(in $000's, except for per share and share data)	
Cash and cash equivalents	$ 4,005	$ 10,608
Debt	$ -	$ -
Stockholders' equity:		
Preferred stock, 7,000,000 shares authorized, $0.01 par value; 1,000,000 shares issued and outstanding	10	10
Common stock, $0.01 par value; 300,000,000 shares authorized, 910,253 and 3,688,030 shares issued and outstanding actual and as adjusted, respectively	9	13
Additional paid-in capital	219,993	226,592
Accumulated other comprehensive income	(2)	(2)
Accumulated deficit	(216,738)	(216,738)
Total stockholders' equity	3,272	9,875
Total capitalization	$ 3,272	$ 9,875

The number of shares of our common stock to be outstanding immediately after this offering is based on 910,253 shares of our common stock outstanding as of March 31, 2019 and excludes:

- 172,310 shares issued since March 31, 2019 (including 155,496 shares issued pursuant to the conversion of 800,000 shares of Series A Preferred 4.5% Convertible Preferred Stock);
- 38,874 shares underlying 200,000 outstanding Series A 4.5% Convertible Preferred Stock;
- 552,836 shares issuable upon the exercise, or conversion as applicable, of outstanding options, restricted stock units (including those issued under our equity compensation plans) and warrants having exercise price, as applicable, ranging from $6.00 to $1,102.40 per share and a weighted average exercise price of $66.23 per share;
- 172,919 shares reserved for future issuances and grants pursuant to our equity incentive plans.
- Shares issuable upon the exercise of (i) 2,777,777 Series M warrants, (ii) 2,777,777 Series N warrants, and (iii) 222,223 representative warrants to be issued in the offering described in this registration statement.

UNDERWRITING

We have entered into an underwriting agreement, dated July 25, 2019, with H.C. Wainwright & Co., LLC (the "representative"), as the representative of the underwriters named below and the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, the underwriters have agreed to purchase the number of our securities set forth opposite its name below.

Underwriter	UNITS	PRE-FUNDED UNITS
H.C. Wainwright & Co., LLC	416,315	2,361,462
Total		

We have been advised by the underwriters that they propose to offer the Units and/or Prefunded Units directly to the public at the public offering prices set forth on the cover page of this prospectus. Any securities sold by the underwriters to securities dealers will be sold at the public offering price less a selling concession not in excess of $0.1214955 per share and $0.0000045 per warrant combination.

The underwriting agreement provides that the underwriters' obligation to purchase the securities in this offering is subject to conditions contained in the underwriting agreement. A copy of the underwriting agreement has been filed as an exhibit to the registration statement of which this prospectus is part. The underwriters have advised us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

No action has been taken by us or the underwriters that would permit a public offering of the securities included in this offering in any jurisdiction where action for that purpose is required. None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offering hereby be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the shares and warrants in any jurisdiction where that would not be permitted or legal.

Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriters by us.

	Per Unit	Per Prefunded Unit	Total
Public offering price	$ 2.70	$ 2.6999	$ 7,499,762
Underwriting discounts and commissions to the underwriters by us (8.0%)	$ 0.216	$ 0.216	$ 600,000
Proceeds to us (before expenses)	$ 2.484	$ 2.4839	$ 6,899,762

We estimate that the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $229,000 and is payable by us. Subject to compliance with FINRA Rule 5110(f), we have agreed to reimburse the representative for its non-accountable expenses in the amount of $35,000, for its out-of-pocket expenses, include legal fees, up to $90,000, and for its clearing expenses in the amount of $10,000 in connection with this offering. We have also agreed to pay to the representative a management fee equal to 1% of the aggregate gross proceeds in this offering.

Option to Purchase Additional Securities

We have granted to the underwriters an option, exercisable not later than 45 days after the date of this prospectus, to purchase up to a number of an additional 416,666 shares and/or additional 416,666 warrant combinations (each comprised of one Series M warrant and one Series N warrant) in any combination thereof. Any shares of common stock and/or warrant combinations so purchased shall be sold at a price per share or per warrant combination equal to the public offering price per share and per warrant combination, less the underwriting discounts and commissions, set forth on the cover page of this prospectus. If any additional shares and/or Series M warrants and Series N warrants in the warrant combinations are purchased pursuant to this option, the underwriters will offer these additional shares and/or Series M warrants and Series N warrants on the same terms as those on which the other securities are being offered hereby.

Representative Warrants

In addition, we have agreed to issue to the representative or its designees warrants to purchase a number of shares of common stock equal to 8% of the aggregate number of shares of common stock (including the shares underlying the Series O pre-funded warrants in this offering and including shares of common stock issued upon exercise of the option to purchase additional securities) with an exercise price of $3.375 per share. The representative's warrants will be exercisable immediately and for five years from the effective date of the registration statement of which this prospectus forms a part and will be in the form of the Series N warrant except as required by FINRA. Pursuant to FINRA Rule 5110(g), the representative's warrants and any shares issued upon exercise of the underwriter warrants shall not 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 immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security: (i) by operation of law or by reason of our reorganization; (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 set forth above for the remainder of the time period; (iii) if the aggregate amount of our securities held by the underwriter or related persons 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 the 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 remain subject to the lock-up restriction set forth above for the remainder of the time period. The representative's warrants are registered in the registration statement of which this prospectus is a part.

We have granted the representative a right of first refusal to act as sole underwriter or sole placement agent in connection with any public or private offering of equity securities or other capital markets financing by us or sole book-runner or sole manager on any debt financing or refinancing using an agent, which right extends for ten months from the closing date of this offering.

The representative shall also be entitled to the foregoing cash commission and warrant compensation with respect to investors contacted by or introduced to us by the representative during the term of our engagement of the representative that participate in a public or private offering or capital-raising transaction during the twelve month period following the termination of our engagement of the representative.

Lock-up Agreements

Our officers and directors have agreed with the representative to be subject to a lock-up period of 90 days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. The representative may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements. We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the closing of this offering, subject to certain customary exceptions, and a restriction on the issuance of any variable priced securities for 12 months following the closing of this offering.

Leak Out

Beginning on the pricing date of this offering and ending 50 trading days after such date (the "leak-out period"), certain investors which purchase more than $1,000,000 of securities offered in this offering, if such investors decide to sell securities purchased in this offering during the leak-out period, may only be permitted to sell such securities in an amount as shall equal 35%, in the aggregate, of the daily trading volume of our common stock on any given trading day, as reported by Nasdaq.

Determination of Offering Price

The public offering price of the securities offered by this prospectus was determined by negotiation between us and the underwriters. Among the factors considered in determining the public offering price of the shares were:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the shares of common stock, Series M warrants, and Series N warrants. That price is subject to change as a result of market conditions and other factors, and we cannot assure you that the shares of common stock, Series M warrants, and Series N warrants can be resold at or above the public offering price.

Stabilization, Short Positions and Penalty Bids

In connection with this offering, the underwriter may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in connection with our common stock.

- Overallotment transactions involve sales by the underwriter of shares of common stock in excess of the number of shares the underwriter is obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriter is not greater than the number of shares that it may purchase in the option to purchase additional securities. In a naked short position, the number of shares involved is greater than the number of shares in the option to purchase additional securities. The underwriter may close out any short position by exercising its option to purchase additional securities and/or purchasing shares in the open market.
- Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum.
- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

In connection with this offering, the underwriters also may engage in passive market making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Indemnification

We have agreed to indemnify the underwriters and selected dealers against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriters or selected dealers may be required to make for these liabilities.

Other Relationships

The representative and its affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. The representative has received, or may in the future receive, customary fees and commissions for these transactions.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

DESCRIPTION OF SECURITIES

The following is a summary of our capital stock and provisions of our restated certificate of incorporation and restated by-laws, as they are in effect as of the date of this prospectus. For more detailed information, please see our amended and restated certificate of incorporation and restated bylaws, which are filed with the Securities and Exchange Commission as exhibits to the registration statement of which this prospectus forms a part.

All share and per share numbers included in this section, and elsewhere in this prospectus, give effect to 1-for-20 reverse stock split that we affected on July 17, 2019.

We are authorized to issue 300,000,000 shares of common stock, par value $0.01 per share, and 7,000,000 shares of preferred stock, par value $0.01 per share. As of July 18, 2019, we had:

- 1,075,208 shares of common stock outstanding; and
- 200,000 shares of our Series A 4.5% Convertible Preferred Stock which is convertible into 38,874 shares of common stock.

Common Stock

Holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, subject to the holder of our Series A 4.5% Convertible Preferred Stock having the ability to appoint one director, and do not have cumulative voting rights. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for dividend payments. All shares of common stock outstanding as of the date of this prospectus are fully paid and nonassessable. The holders of common stock have no preferences or rights of conversion, exchange, pre-emption or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. In the event of any liquidation, dissolution or winding-up of our affairs, holders of common stock will be entitled to share ratably in our assets that are remaining after payment or provision for payment of all of our debts and obligations and after liquidation payments to holders of outstanding shares of preferred stock, if any.

Preferred Stock

Our board of directors has the authority, without action by our stockholders, to designate and issue up to an additional 6,000,000 shares of preferred stock in one or more series and to designate the rights, preferences, and limitations of all such series, any or all of which may be superior to the rights of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of the holders of common stock until our board of directors determines the specific rights of the holders of preferred stock. However, effects of the issuance of preferred stock include restricting dividends on our common stock, diluting the voting power of our common stock, impairing the liquidation rights of our common stock, and making it more difficult for a third party to acquire us, which could have the effect of discouraging a third party from acquiring, or deterring a third party from paying a premium to acquire, a majority of our outstanding voting stock. We have no present plans to issue any additional shares of our preferred stock.

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series, including voting rights, dividend rights and redemption and liquidation preferences. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our company before any payment is made to the holders of shares of our common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock.

Series A 4.5% Convertible Preferred Stock

As of July 18, 2019, we had outstanding 200,000 shares of Series A 4.5% Convertible Preferred Stock with a stated value of $12.7895 per share and which are immediately convertible into an aggregate of 38,873 shares of common stock. The Series A Preferred Stock has no provisions regarding subsequent securities issuances or so called “price protection provisions.” The holders of Series A Preferred Stock shall be entitled receive 4.5% dividends in cash or additional shares of Series A Preferred Stock if and when declared by the Company’s board of directors in preference to the payment of any dividends on the Common Stock. The holders of Series A Preferred Stock shall have no voting rights but shall be entitled to appoint one (1) member to our board of directors. This right to appoint a member of the board of directors will terminate when there are less than 200,000 shares of Series A Preferred Stock outstanding.

Outstanding Common Stock Purchase Warrants

As of March 31, 2019, there were warrants to purchase 360,175 shares of our common stock outstanding at a weighted-average exercise price of $51.14 per share and expiration dates between July 2019 and August 2024. This amount is comprised of the following warrants:

Range of Exercise Prices	Number of Warrants Outstanding	Range of Expiration Dates
$6 - $17.5	333,135	May 2021 - August 2024
$22.20 - $115.80	1,731	May 2021 - May 2023
$256.00 - $258.00	1,965	January 2022
$324.00 - $326.00	8,727	March 2020
$442.00 - $558.00	2,212	December 2019 - January 2021
$690.00 - $784.00	11,828	October 2019 - October 2021
$1,046.20	577	July 2019
	360,175	

Series O Pre-Funded Warrants

The following summary of certain terms and provisions of the Series O pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series O pre-funded warrant, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Series O pre-funded warrant for a complete description of the terms and conditions of the Series O pre-funded warrants.

Duration and Exercise Price

Each Series O pre-funded warrant offered hereby will have an initial exercise price per share equal to $0.0001. The Series O pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series O pre-funded warrants will be issued separately from the Series M warrants and Series N warrants that comprise the Prefunded Units. The Series O pre-funded warrants will be issued in certificated form.

Exercisability

The Series O pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% (or, at the election of a holder, 9.99%) of the outstanding common stock immediately after exercise (the "Beneficial Ownership Limitation"); provided, however, that upon notice to the Company, the holder may increase or decrease the Beneficial Ownership Limitation, provided that in no event shall the Beneficial Ownership Limitation exceed 9.99% and any increase in the Beneficial Ownership Limitation will not be effective until 61 days following notice of such increase from the holder to us.

Cashless Exercise

At the election of the holder, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series O pre-funded warrants.

Transferability

Subject to applicable laws, a Series O pre-funded warrant may be transferred at the option of the holder upon surrender of the Series O pre-funded warrant to us together with the appropriate instruments of transfer.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the Series O pre-funded warrants. Rather, the number of shares of common stock to be issued will be rounded up to the nearest whole number.

Trading Market

There is no trading market available for the Series O pre-funded warrants on any securities exchange or nationally recognized trading system. We do not intend to list the Series O pre-funded warrants on any securities exchange or nationally recognized trading system. The common stock issuable upon exercise of the Series O pre-funded warrants is currently listed on the Nasdaq Capital Market.

Right as a Stockholder

Except as otherwise provided in the Series O pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Series O pre-funded warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Series O pre-funded warrants. The Series O pre-funded warrants will provide that holders have the right to participate in distributions or dividends paid on our common stock.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series O pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series O pre-funded warrants will be entitled to receive upon exercise of the Series O pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series O pre-funded warrants immediately prior to such fundamental transaction.

Series M warrants

The following summary of certain terms and provisions of the Series M warrants included with the shares of common stock and the Series O pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series M warrants, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Series M warrant for a complete description of the terms and conditions of the Series M warrants.

Duration and Exercise Price

Each Series M warrant offered hereby will have an exercise price equal to $2.70 per share of common stock. The Series M warrants will be immediately exercisable and will expire on December 31, 2020. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series M warrants will be issued separately from the common stock, or the Series O pre-funded warrants, as applicable. The Series M warrants will be issued in certificated form.

Exercisability

The Series M warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% (or at the election of a holder, 9.99%) of the outstanding common stock immediately after exercise (the "Beneficial Ownership Limitation"); provided, however, that upon notice to the Company, the holder may increase or decrease the Beneficial Ownership Limitation, provided that in no event shall the Beneficial Ownership Limitation exceed 9.99% and any increase in the Beneficial Ownership Limitation will not be effective until 61 days following notice of such increase from the holder to us.

Cashless Exercise

If, at the time a holder exercises its Series M warrants, a registration statement registering the issuance of the shares of common stock underlying the Series M warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series M warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the Series M warrants. Rather, the number of shares of common stock to be issued will be rounded up to the nearest whole number.

Transferability

Subject to applicable laws, a Series M warrant may be transferred at the option of the holder upon surrender of the Series M warrant to us together with the appropriate instruments of transfer.

Exchange Listing

There is no trading market available for the Series M warrants on any securities exchange or nationally recognized trading system. We do not intend to list the Series M warrants on any securities exchange or nationally recognized trading system. The common stock issuable upon exercise of the Series M warrants is currently listed on the Nasdaq Capital Market.

Right as a Stockholder

Except as otherwise provided in the Series M warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Series M warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Series M warrants. The Series M warrants will provide that holders have the right to participate in distributions or dividends paid on our common stock.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series M warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series M warrants will be entitled to receive upon exercise of the Series M warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series M warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction, subject to an exception as described in the Series M warrants, the holders of the Series M warrants have the right to require us or a successor entity to redeem the Series M warrant for cash (or, under certain circumstances, for consideration in the same form as the consideration in the fundamental transaction) in the amount of the Black-Scholes value of the unexercised portion of the Series M warrant within 30 days of the date of the consummation of the fundamental transaction as described in the Series M warrant.

Series N warrants

The following summary of certain terms and provisions of the Series N warrants included with the shares of common stock and the Series O pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series N warrants, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Series N warrant for a complete description of the terms and conditions of the Series N warrants.

Duration and Exercise Price

Each Series N warrant offered hereby will have an exercise price equal to $2.70 per share of common stock. The Series N warrants will be immediately exercisable and will expire five years from the date of issuance. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series M warrants will be issued separately from the common stock, or the Series O pre-funded warrants, as the case may be. The Series N warrants will be issued in certificated form.

Exercisability

The Series N warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% (or at the election of a holder, 9.99%) of the outstanding common stock immediately after exercise (the "Beneficial Ownership Limitation"); provided, however, that upon notice to the Company, the holder may increase or decrease the Beneficial Ownership Limitation, provided that in no event shall the Beneficial Ownership Limitation exceed 9.99% and any increase in the Beneficial Ownership Limitation will not be effective until 61 days following notice of such increase from the holder to us.

Cashless Exercise

If, at the time a holder exercises its Series N warrants, a registration statement registering the issuance of the shares of common stock underlying the Series N warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series N warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the Series N warrants. Rather, the number of shares of common stock to be issued will be rounded up to the nearest whole number.

Transferability

Subject to applicable laws, a Series N warrant may be transferred at the option of the holder upon surrender of the Series N warrant to us together with the appropriate instruments of transfer.

Exchange Listing

There is no trading market available for the Series N warrants on any securities exchange or nationally recognized trading system. We do not intend to list the Series N warrants on any securities exchange or nationally recognized trading system. The common stock issuable upon exercise of the Series N warrants is currently listed on the Nasdaq Capital Market.

Right as a Stockholder

Except as otherwise provided in the Series N warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Series N warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Series N warrants. The Series N warrants will provide that holders have the right to participate in distributions or dividends paid on our common stock.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series N warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series N warrants will be entitled to receive upon exercise of the Series N warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series N warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction, subject to an exception as described in the Series N warrants, the holders of the Series N warrants have the right to require us or a successor entity to redeem the Series N warrant for cash (or, under certain circumstances, for consideration in the same form as the consideration in the fundamental transaction) in the amount of the Black-Scholes value of the unexercised portion of the Series N warrant within 30 days of the date of the consummation of the fundamental transaction as described in the Series N warrant.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. We act as the transfer agent and registrar for out Series A 4.5% Convertible Preferred Stock.

General Descriptions

Anti-Takeover Effects of Some Provisions of Delaware Law

Provisions of Delaware law could make the acquisition of our company through a tender offer, a proxy contest or other means more difficult and could make the removal of incumbent officers and directors more difficult. We expect these provisions to discourage coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. We believe that the benefits provided by our ability to negotiate with the proponent of an unfriendly or unsolicited proposal outweigh the disadvantages of discouraging these proposals. We believe the negotiation of an unfriendly or unsolicited proposal could result in an improvement of its terms.

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person became an interested stockholder, unless:

- Prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

- The stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers, and (b) shares owned 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

- On or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting securities. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Anti-Takeover Effects of Provisions of Our Charter Documents

Our amended and restated bylaws provide for our board of directors to be divided into three classes serving staggered terms. Approximately one-third of the board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of the outstanding voting stock from obtaining control of the board of directors until the second annual stockholders meeting or longer, following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of our company and could increase the likelihood that incumbent directors will retain their positions. Our amended and restated bylaws provides any director or the entire Board may be removed from office at any time, with or without cause, by the affirmative vote of the holders of at least a majority of the voting power of the issued and outstanding shares of capital stock of the corporation then entitled to vote in the election of directors.

Our amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the board of directors. At an annual meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to our Secretary timely written notice, in proper form, of his or her intention to bring that business before the meeting. The amended and restated bylaws do not give the board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Our amended and restated bylaws provide that only our board of directors, the chairperson of the board or the chief executive officer (or president, in the absence of a chief executive officer) or holders of more than twenty percent (20%) of the total voting power of the outstanding shares of capital stock may call a special meeting of stockholders. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual meeting.

Limitations on Liability and Indemnification of Officers and Directors

Our amended restated certificate of incorporation limits the liability of our officers and directors to the fullest extent permitted by the Delaware General Corporation Law, and our restated certificate of incorporation and restated bylaws provide for indemnification of our officers and directors to the fullest extent permitted by such law.

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR HOLDERS OF OUR COMMON STOCK, SERIES O PRE-FUNDED WARRANTS, SERIES M WARRANTS AND SERIES N WARRANTS

The following discussion describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock, Series O pre-funded warrants, Series M warrants, and Series N warrants acquired in this offering. This discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended (referred to as the "Code"), existing and proposed U.S. Treasury regulations promulgated thereunder, and administrative rulings and court decisions in effect as of the date hereof, all of which are subject to change at any time, possibly with retroactive effect. No ruling has been or will be sought from the Internal Revenue Service, or IRS, with respect to the matters discussed below, and there can be no assurance the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants, or that any such contrary position would not be sustained by a court.

We assume in this discussion that the shares of our common stock, Series O pre-funded warrants, Series M warrants, and Series N warrants will be held as capital assets (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxes, does not discuss the potential application of the Medicare contribution tax, the alternative minimum tax and does not deal with state or local taxes, U.S. federal gift and estate tax laws, except as specifically provided below with respect to non-U.S. holders, or any non-U.S. tax consequences that may be relevant to holders in light of their particular circumstances. This discussion also does not address the special tax rules applicable to particular holders, such as:

- financial institutions;
- brokers or dealers in securities;
- tax-exempt organizations;
- pension plans;
- regulated investment companies;
- owners that hold our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- insurance companies;
- controlled foreign corporations, passive foreign investment companies, or corporations that accumulate earnings to avoid U.S. federal income tax; and
- certain U.S. expatriates.

In addition, this discussion does not address the tax treatment of partnerships or other pass-through entities or persons who hold our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants through partnerships or other entities which are pass-through entities for U.S. federal income tax purposes. A partner in a partnership or other pass-through entity that will hold our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants through a partnership or other pass-through entity, as applicable.

The discussion of U.S. federal income tax considerations is for information purposes only and is not tax advice. Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of acquiring, holding and disposing of our common stock, Series O pre-funded warrants, Series M warrants, and Series N warrants.

For the purposes of this discussion, a "U.S. Holder" means a beneficial owner of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants that is for U.S. federal income tax purposes (a) an individual citizen or resident of the United States, (b) a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes), created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (c) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person. A "Non-U.S. Holder" is, for U.S. federal income tax purposes, a beneficial owner of common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants that is not a U.S. Holder or a partnership for U.S. federal income tax purposes.

Tax Cuts and Jobs Act

Under tax legislation signed into law in December 2017 commonly known as the Tax Cuts and Jobs Act of 2017, U.S. Holders that use an accrual method of accounting for tax purposes and have certain financial statements generally will be required to include certain amounts in income no later than the time such amounts are taken into account as revenue in such financial statements. The application of this rule thus may require the accrual of income earlier than would be the case under the general tax rules described below, although the precise application of this rule is unclear at this time. This rule generally will be effective for taxable years beginning after December 31, 2017. U.S. Holders that use an accrual method of accounting should consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

Allocation of Purchase Price to Common Stock, Pre-funded Warrants and Warrants

For U.S. federal income tax purposes, a holder's acquisition of the warrants and common stock or prefunded warrants, as applicable, will be treated as the acquisition of an "investment unit" consisting of one share of common stock or one pre-funded warrant, as applicable, and a warrant to acquire one share of our common stock, subject to adjustment. The purchase price for each investment unit will be allocated between these two components in proportion to their relative fair market values at the time the unit is purchased by the holder. This allocation of the purchase price for each unit will establish the holder's initial tax basis for U.S. federal income tax purposes in the common stock or pre-funded warrant, as applicable, and the warrant included in each unit. The separation of the share of common stock or pre-funded warrant, as applicable, and the warrant included in each unit should not be a taxable event for U.S. federal income tax purposes. Each holder should consult his, her or its own tax advisor regarding the allocation of the purchase price for a unit.

Treatment of Series O Pre-Funded Warrants

Although it is not entirely free from doubt, a Series O pre-funded warrant should be treated as a share of our common stock for U.S. federal income tax purposes and a holder of Series O pre-funded warrants should generally be taxed in the same manner as a holder of common stock as described below. Accordingly, upon exercise, the holding period of a Series O pre-funded warrant should carry over to the share of common stock received. Similarly, the tax basis of the Series O pre-funded warrant should carry over to the share of common stock received upon exercise increased by the exercise price of $0.0001. Each holder should consult his, her or its own tax advisor regarding the risks associated with the acquisition of a unit pursuant to this offering (including potential alternative characterizations). The balance of this discussion generally assumes that the characterization described above is respected for U.S. federal income tax purposes.

Tax Considerations Applicable to U.S. Holders

Exercise and Expiration of Series M *Warrants and Series N Warrants*

In general, a U.S. Holder will not recognize gain or loss for U.S. federal income tax purposes upon exercise of a warrant. The U.S. Holder will take a tax basis in the shares acquired on the exercise of a Series M warrant and Series N Warrant equal to the exercise price of the Series M warrant and Series N warrant, increased by the U.S. Holder's adjusted tax basis in the Series M warrant and Series N warrant exercised (as determined pursuant to the rules discussed above). The U.S. Holder's holding period in the shares of our common stock acquired on exercise of the Series M warrant and Series N warrant will begin on the date of exercise of the Series M warrant or Series N warrant, and will not include any period for which the U.S. Holder held the Series M warrant or Series N warrant.

In certain limited circumstances, a U.S. Holder may be permitted to undertake a cashless exercise of Series M warrants or Series N warrants into our common stock. The U.S. federal income tax treatment of a cashless exercise of Series M warrants and Series N warrants into our common stock is unclear, and the tax consequences of a cashless exercise could differ from the consequences upon the exercise of a Series M warrant or Series N warrant described in the preceding paragraph. U.S. Holders should consult their own tax advisors regarding the U.S. federal income tax consequences of a cashless exercise of Series M warrants and Series N warrants.

The lapse or expiration of a Series M warrant or Series N warrant will be treated as if the U.S. Holder sold or exchanged the Series M warrant or Series N warrant and recognized a capital loss equal to the U.S. Holder's tax basis in the Series M warrant or Series N warrant. The deductibility of capital losses is subject to limitations.

Certain Adjustments to and Distributions on the Series M Warrants and Series N Warrants

Under Section 305 of the Code, an adjustment to the number of shares of common stock issued on the exercise of the Series M warrants and Series N warrants, or an adjustment to the exercise price of the Series M warrants and Series N warrants, may be treated as a constructive distribution to a U.S. Holder of the Series M warrants and Series N warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. Holder's proportionate interest in our "earnings and profits" or assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to our shareholders). In addition, if we were to make a distribution in cash or other property with respect to our common stock after the issuance of the Series M warrants, then we may, in certain circumstances, make a corresponding distribution to a Series M warrant and Series N warrant holder. The taxation of a distribution received with respect to a Series M warrant and Series N warrant is unclear. It is possible such a distribution would be treated as a distribution (or constructive distribution), although other treatments are possible. For more information regarding the tax considerations related to distributions, see the discussion below regarding "Distributions." U.S. Holders should consult their tax advisors regarding the proper treatment of any adjustments to and adjustments on the Series M warrants and Series N warrants.

Distributions

As discussed above, we currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In the event that we do make distributions on our common stock or Series O pre-funded warrants to a U.S. Holder, those distributions generally will constitute dividends for U.S. tax purposes to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a U.S. Holder's adjusted tax basis in our common stock or Series O pre-funded warrant, as applicable. Any remaining excess will be treated as gain realized on the sale or exchange of our common stock or Series O pre-funded warrant as described below under the section titled "— Gain on Disposition of Our Common Stock, Series O Pre-Funded Warrants, Series M warrants, or Series N Warrants."

Gain on Disposition of Our Common Stock, Series OPre-Funded Warrants, Series M warrants, or Series N Warrants

Upon a sale or other taxable disposition of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants, a U.S. Holder generally will recognize capital gain or loss in an amount equal to the difference between the amount realized and the U.S. Holder's adjusted tax basis in the common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants. Capital gain or loss will constitute long-term capital gain or loss if the U.S. Holder's holding period for the common stock, Series O pre-funded warrant, Series M warrant, or Series N warrant exceeds one year. The deductibility of capital losses is subject to certain limitations. U.S. Holders who recognize losses with respect to a disposition of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants should consult their own tax advisors regarding the tax treatment of such losses.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to payments of dividends (including constructive dividends) on the common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants and to the proceeds of a sale or other disposition of common stock, Series M warrants, Series N warrants, and Series O pre-funded warrants paid by us to a U.S. Holder unless such U.S. Holder is an exempt recipient, such as a corporation. Backup withholding will apply to those payments if the U.S. Holder fails to provide the holder's taxpayer identification number, or certification of exempt status, or if the holder otherwise fails to comply with applicable requirements to establish an exemption. Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against the U.S. Holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS.

Tax Considerations Applicable to Non-U.S. Holders

Exercise and Expiration of Series M *Warrants and Series N warrants*

In general, a Non-U.S. Holder will not be subject to U.S. federal income tax on the exercise of the Series M warrants or Series N warrants into shares of common stock. The U.S. federal income tax treatment of a cashless exercise of Series M warrants or Series N warrants into our common stock is unclear. A Non-U.S. Holder should consult his, her, or its own tax advisor regarding the U.S. federal income tax consequences of a cashless exercise of Series M warrants or Series N warrants.

The expiration of a Series M warrant or Series N warrant will be treated as if the Non-U.S. Holder sold or exchanged the Series M warrant or Series N warrant and recognized a capital loss equal to the Non-U.S. Holder's tax basis in the Series M warrant or Series N warrant. However, a Non-U.S. Holder will not be able to utilize a loss recognized upon expiration of a Series M warrant or Series N warrant against the Non-U.S. Holder's U.S. federal income tax liability unless the loss is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if an income tax treaty applies, is attributable to a permanent establishment or fixed base in the United States) or is treated as a U.S.-source loss and the Non-U.S. Holder is present 183 days or more in the taxable year of disposition and certain other conditions are met.

Certain Adjustments to and Distributions on the Series M *Warrants*

As described under "—U.S. Holders— Certain Adjustments to the Series M Warrants and Series N warrants, " an adjustment to the Series M warrants or Series N warrants could result in a constructive distribution to a Non-U.S. Holder, which would be treated as described under "Distributions" below, and the tax treatment of a distribution on a warrant is unclear. Any resulting withholding tax attributable to deemed dividends would be collected from other amounts payable or distributable to the Non-U.S. Holder. Non-U.S. Holders should consult their tax advisors regarding the proper treatment of any adjustments to and distributions on the Series M warrants.

Distributions

As discussed above, we currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In the event that we do make distributions on our common stock or Series O pre-funded warrants to a Non-U.S. Holder, those distributions generally will constitute dividends for U.S. federal income tax purposes as described in "—U.S. Holders—Distributions."

Any distribution (including constructive distributions) on our common stock or Series O pre-funded warrants that is treated as a dividend paid to a Non-U.S. Holder that is not effectively connected with the holder's conduct of a trade or business in the United States will generally be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and the Non-U.S. Holder's country of residence. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide the applicable withholding agent with a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. Such form must be provided prior to the payment of dividends and must be updated periodically. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to such agent. The holder's agent may then be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. If you are eligible for a reduced rate of U.S. withholding tax under an income tax treaty, you should consult with your own tax advisor to determine if you are able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid (or constructive dividends deemed paid) to a Non-U.S. Holder that are effectively connected with the holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base that the holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us (or, if stock is held through a financial institution or other agent, to the applicable withholding agent). In general, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates applicable to U.S. persons. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments.

See also the sections below titled "— Information Reporting and Backup Withholding" and "— Foreign Accounts" for additional withholding rules that may apply to dividends paid to certain foreign financial institutions or non-financial foreign entities.

Gain on Disposition of Our Common Stock, Series O Pre-Funded Warrants, Series M warrants, or Series N Warrants

Subject to the discussions below under the sections titled "— Information Reporting and Backup Withholding" and "— Foreign Accounts," a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax with respect to gain realized on a sale or other disposition of our common stock, Series O pre-funded warrant, Series M warrants or Series N warrants unless

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States, and if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States; in these cases, the Non-U.S. Holder will be taxed on a net income basis at the regular graduated rates and in the manner applicable to U.S. persons, and if the Non-U.S. Holder is a corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;

- the Non-U.S. Holder is a nonresident alien present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the Non-U.S. Holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S.-source capital losses of the Non-U.S. Holder, if any; or

- we are, or have been at any time during the five-year period preceding such disposition (or the Non-U.S. Holder's holding period of the common stock, Series O pre-funded warrants, Series M warrants or Series N warrants, if shorter), a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market and the Non-U.S. Holder held no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the five-year period ending on the date of the disposition or the period that the Non-U.S. Holder held our common stock. Special rules may apply to the determination of the 5% threshold in the case of a holder of a Series O pre-funded warrant, Series M warrant or Series N warrant. Non-U.S. Holders are urged to consult their own tax advisors regarding the effect of holding our Series O pre-funded warrants, Series M warrants, or Series N warrants on the calculation of such 5% threshold. Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" (as defined in the Code and applicable regulations) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

See the sections titled "— Information Reporting and Backup Withholding" and "— Foreign Accounts" below for additional information regarding withholding rules that may apply to proceeds of a disposition of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants paid to foreign financial institutions or non-financial foreign entities.

Federal Estate Tax

Common stock or Series O pre-funded warrants owned or treated as owned by an individual who is a Non-U.S. Holder (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise. The foregoing may also apply to Series M warrants and Series N warrants.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each Non-U.S. Holder the gross amount of the distributions (including constructive distributions) on our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. Holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate, currently 24%, with respect to dividends (including constructive dividends) on our common stock Series O pre-funded warrants, Series M warrants, or Series N warrants. Generally, a holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN (or other applicable Form W-8) or otherwise meets documentary evidence requirements for establishing that it is a Non-U.S. Holder, or otherwise establishes an exemption. Dividends paid to Non-U.S. Holders subject to withholding of U.S. federal income tax, as described above under the heading "Dividends," will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock, Series O pre-funded warrants, Series M warrants, or Series N warrants by a Non-U.S. Holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a Non-U.S. Holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. Holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the Non-U.S. Holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder can be refunded or credited against the Non-U.S. Holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

Foreign Accounts

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a 30% withholding tax on dividends on, and gross proceeds from the sale or other disposition of, common stock, Series O pre-funded warrants, Series M warrants, and Series N warrants if paid to a non-U.S. entity unless (i) if the non-U.S. entity is a "foreign financial institution," the non-U.S. entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the non-U.S. entity is not a "foreign financial institution," the non-U.S. entity identifies certain of its U.S. investors, if any, or (iii) the non-U.S. entity is otherwise exempt under FATCA.

Withholding under FATCA generally (1) applies to payments of dividends on our common stock, Series O pre-funded warrants, Series M warrants, and Series N warrants and (2) will apply to payments of gross proceeds from a sale or other disposition of our common stock, Series O pre-funded warrants Series M warrants and Series N warrants. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Under certain circumstances, a holder may be eligible for refunds or credits of the tax. Holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock, Series O pre-funded warrants, Series M warrants or Series N warrants.

The preceding discussion of material U.S. federal tax considerations is for information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, Series O pre-funded warrants, Series M warrants or Series N warrants, including the consequences of any proposed changes in applicable laws

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements and include statements about products in development, results and analyses of pre-clinical studies, clinical trials and studies, research and development expenses, cash expenditures, and alliances and partnerships, among other matters. You can identify these forward-looking statements because they involve our expectations, intentions, beliefs, plans, projections, anticipations, or other characterizations of future events or circumstances. These forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that may cause actual results to differ materially from those in the forward-looking statements as a result of any number of factors. These factors include, but are not limited to, risks relating to our: ability to conduct and obtain successful results from ongoing pre-clinical and clinical trials, commercialize our technology, obtain regulatory approval for our product candidates, contract with third parties to adequately test and manufacture our proposed therapeutic products, protect our intellectual property rights and obtain additional financing to continue our operations. Some of these factors are more fully discussed in the section entitled "Risk Factors" as well as elsewhere herein. We do not undertake to update any of these forward-looking statements or to announce the results of any revisions to these forward-looking statements except as required by law.

All share and per share numbers included in this section, and elsewhere in this prospectus, give effect to 1-for-20 reverse stock split that we affected on July 17, 2019.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations or MD&A is provided, in addition to the accompanying financial statements and notes, to assist you in understanding our results of operations, financial condition and cash flows. Our MD&A is organized as follows:

- *Executive Overview* — Discussion of our business and overall analysis of financial and other highlights affecting the Company in order to provide context for the remainder of MD&A.
- *Trends & Outlook* — Discussion of what we view as the overall trends affecting our business and overall strategy.
- *Critical Accounting Policies*— Accounting policies that we believe are important to understanding the assumptions and judgments incorporated in our reported financial results and forecasts.
- *Results of Operations*— Analysis of our financial results comparing the three-month periods ended March 31, 2019 to the comparable period of 2018; and years ended December 31, 2018 to 2017.
- *Liquidity and Capital Resources*— An analysis of cash flows and discussion of our financial condition and future liquidity needs.

Executive Overview

We are focused on the research and development of therapies for the treatment of central nervous system diseases, which are based on our proprietary human neural stem cells and our small molecule compounds with the goal of gaining approval from the United States Food and Drug Administration or FDA, and its international counterparts, to market and commercialize such therapies. We are headquartered in Germantown, Maryland.

Our patented technology platform has three core components:

1. Over 300 lines of human, regionally specific neural stem cells, some of which we believe have the potential to be used to treat serious or life-threatening diseases through direct transplantation into the central nervous system;

2. Proprietary screening capability – our ability to generate human neural stem cell lines provides a platform for chemical screening and discovery of novel compounds; and

3. Small molecules that have resulted from Neuralstem's neurogenesis screening platform that we believe may have the potential to treat wide variety of nervous system conditions.

Our technology platform to date has produced four lead assets, two in clinical development and two in preclinical development: our NSI-566 stem cell therapy program (clinical stage), NSI-189 small molecule program (clinical stage) and NSI-532 and NSI-577, both of which are second-generation stem cell therapy programs (preclinical stage).

We have developed a portfolio of patents and patent applications that form the proprietary base for our research and development efforts. We own or exclusively license 20 United States issued and pending patents and over 60 foreign issued and pending patents in the field of regenerative medicine, related to our stem cell technologies as well as our small molecule compounds. Our issued patents have expiration dates ranging from 2023 through 2035.

We believe our technology, in combination with our expertise, and established collaborations with major research institutions, could facilitate the development and commercialization of products for use in the treatment of a several nervous system disorders including neurodegenerative conditions and regenerative repair of acute and chronic disease.

Trends & Outlook

Revenue

We generated no revenues from the sale of our proposed therapies for any of the periods presented.

We have historically generated minimal revenue from the licensing of our intellectual property to third parties as well as payments under a settlement agreement.

On a long-term basis, we anticipate that our revenue will be derived primarily from licensing/royalty fees and the sales of our products currently under development, acquired and/or in-licensed in the future, small molecule compounds and licensing fees and royalties from our cell-based therapies. Based on the development stage of our business, we are not yet able to accurately predict when we will have a product ready for commercialization, if ever.

Research and Development Expenses

Our research and development expenses consist primarily of clinical trial expenses, including; payments to clinical trial sites that perform our clinical trials and clinical research organizations (CROs) that help us manage our clinical trials, manufacturing of small molecule drugs and stem cells for both human clinical trials and for pre-clinical studies and research, personnel costs for research and clinical personnel, and other costs including research supplies and facilities.

We focus on the development of therapies with potential uses in multiple indications and use employee and infrastructure resources across several projects. Accordingly, many of our costs are not attributable to a specifically identified product and we do not account for internal research and development costs on a project-by-project basis.

We expect that research and development expenses, which include expenses related to our ongoing clinical trials, will increase in the future as funding allows and as we proceed into later stage clinical trials or commence development of new product candidates.

We have a wholly owned subsidiary in the People's Republic of China. We anticipate that this subsidiary will primarily: (i) conduct pre-clinical research with regard to proposed stem cells therapies, and (ii) oversee our approved future clinical trials in China, including the current trial to treat motor deficits due to ischemic stroke.

In August 2017, we were awarded a Small Business Innovation Research ("SBIR") grant by the National Institutes of Health ("NIH") to evaluate in preclinical studies the potential of NSI-189, a novel small molecule compound, for the prevention and treatment of diabetic neuropathy. The award of approximately $1 million will be paid over a two-year period, if certain conditions are met as mid-term. In June 2018, we were awarded a Department of Defense grant related to our efforts involving stem cell therapy for severe traumatic brain injury. The award totals approximately $150,000. The proceeds from such awards are recorded as a reduction of our gross research and development expenses, based on the terms and conditions of the grant.

General and Administrative Expenses

General and administrative expenses are primarily comprised of salaries, benefits and other costs associated with our operations including, finance, human resources, information technology, public relations and costs associated with maintaining a public company listing, legal, audit and compliance fees, facilities and other external general and administrative services.

Going Concern

Our auditors' report on our December 31, 2018 audited consolidated financial statements expressed an opinion that the Company has suffered recurring losses from operations and has an accumulated deficit that raises substantial doubt about its ability to continue as a going concern.. Accordingly, our current cash level raises substantial doubt about our ability to continue as a going concern past the third quarter of 2019. If we do not obtain additional funds by such time, we may no longer be able to continue as a going concern and will cease operation which means that our shareholders will lose their entire investment.

Critical Accounting Policies

Our unaudited condensed consolidated financial statements have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Note 2 of the Notes to Unaudited Condensed Consolidated Financial Statements included elsewhere herein describes the significant accounting policies used in the preparation of the financial statements. Certain of these significant accounting policies are considered to be critical accounting policies, as defined below.

A critical accounting policy is defined as one that is both material to the presentation of our financial statements and requires management to make difficult, subjective or complex judgments that could have a material effect on our financial condition and results of operations. Specifically, critical accounting estimates have the following attributes: (1) we are required to make assumptions about matters that are highly uncertain at the time of the estimate; and (2) different estimates we could reasonably have used, or changes in the estimate that are reasonably likely to occur, would have a material effect on our financial condition or results of operations.

Estimates and assumptions about future events and their effects cannot be determined with certainty. We base our estimates on historical experience and on various other assumptions believed to be applicable and reasonable under the circumstances. These estimates may change as new events occur, as additional information is obtained and as our operating environment changes. These changes have historically been minor and have been included in the financial statements as soon as they became known. Based on a critical assessment of our accounting policies and the underlying judgments and uncertainties affecting the application of those policies, management believes that our financial statements are fairly stated in accordance with U.S. GAAP and present a meaningful presentation of our financial condition and results of operations. We believe the following critical accounting policies reflect our more significant estimates and assumptions used in the preparation of our consolidated financial statements:

Use of Estimates - The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The unaudited condensed consolidated financial statements include significant estimates for the expected economic life and value of our licensed technology and related patents, our net operating loss and related valuation allowance for tax purposes, the fair value of our liability classified warrants and our share-based compensation related to employees and directors, consultants and advisors, among other things. Because of the use of estimates inherent in the financial reporting process, actual results could differ significantly from those estimates.

Long Lived Intangible Assets - Our long-lived intangible assets consist of our intellectual property patents including primarily legal fees associated with the filings and in defense of our patents. The assets are amortized on a straight-line basis over the expected useful life which we define as ending on the expiration of the patent group. These assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. We assess this recoverability by comparing the carrying amount of the asset to the estimated undiscounted future cash flows to be generated by the asset. If an asset is deemed to be impaired, we estimate the impairment loss by determining the excess of the asset's carrying amount over the estimated fair value. These determinations use assumptions that are highly subjective and include a high degree of uncertainty. During the three- month periods ended March 31, 2019 and 2018, no significant impairment losses were recognized.

Fair Value Measurements - The fair value of our short-term financial instruments, which primarily include cash and cash equivalents, other short-term investments, accounts payable and accrued expenses, approximate their carrying values due to their short maturities. The fair value of our long-term indebtedness was estimated based on the quoted prices for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities which approximates the carrying value. The fair values of our liability classified warrants are estimated using Level 3 unobservable inputs.

Share-Based Compensation - We account for share-based compensation at fair value; accordingly, we expense the estimated fair value of share-based awards over the requisite service period. Share-based compensation cost for stock options and warrants issued to employees and board members is determined at the grant date while awards granted to non-employee consultants are generally valued at the vesting date using an option pricing model. Option pricing models require us to make assumptions, including expected volatility and expected term of the options. If any of the assumptions we use in the model were to significantly change, share-based compensation expense may be materially different. Share-based compensation cost for restricted stock and restricted stock units issued to employees and board members is determined at the grant date based on the closing price of our common stock on that date. The value of the award that is ultimately expected to vest is recognized as expense on a straight-line basis over the requisite service period.

Results of Operations

Comparison of Three Months Ended March 31, 2019 and 2018

Revenue
During each of the three months ended March 31, 2019 and 2018 we recognized revenue of $2,500 related to ongoing fees pursuant to certain licenses of our intellectual property to third parties.

Operating Expenses
Operating expenses for the three months ended March 31 were as follows:

	Three Months Ended March 31,		Increase (Decrease)	
	2019	2018	$	%
Operating Expenses				
Research and development expenses	$ 1,514,463	$ 1,169,441	$ 345,022	30%
General and administrative expenses	944,602	1,182,054	(237,452)	(20%)
Total operating expenses	$ 2,459,065	$ 2,351,495	$ 107,570	5%

Research and Development Expenses
The increase of approximately $345,000 or 30% in research and development expenses for the three months ended March 31, 2019 compared to the comparable period of 2018 was primarily attributable to $223,000 of severance related expenses, a $166,000 increase in our R&D consulting relating to evaluating strategic alternatives and a $136,000 increase in non-cash share-based compensation expense partially offset by a $186,000 decrease in clinical trial and related costs due our continued cost cutting efforts.

General and Administrative Expenses
The decrease of approximately $237,000 or 20% in general and administrative expenses for the three months ended March 31, 2019 compared to the comparable period of 2018 was primarily attributable to a $94,000 decrease in consulting and professional fees, a $70,000 decrease increase in tax and insurance expenses along with a $36,000 decrease in non-cash share-based compensation expense.

Other (expense) income
Other income (expense), net totaled approximately ($657,000) and $202,000 for the three months ended March 31, 2019 and 2018, respectively.

Other expense, net in 2019 consisted primarily of approximately a $368,000 loss related to the write-off of a related party receivable, $340,000 of non-cash losses related to the fair value adjustment of our liability classified stock purchase warrants partially offset by $29,000 of interest income and $24,000 of sublease income.

Other income, net in 2018 consisted primarily of approximately $190,000 of non-cash gains related to the fair value adjustment of our liability classified stock purchase warrants and $18,000 of interest income.

Comparison of Our Results of Operations for the Years Ended December 31, 2018 and 2017

Revenue

During each of the years ended December 31, 2018 and 2017,we recognized $250,000 of milestone-based royalties related to a settlement of a prior patent infringement case. In addition, during each of the years ended December 31, 2018 and 2017, we recognized revenue of $10,000related to ongoing fees pursuant to certain licenses of our intellectual property to third parties.

Operating Expenses

Operating expenses for 2018 and 2017 were as follows:

	Year Ended December 31,		Increase (Decrease)	
	2018	2017	$	%
Operating Expenses				
Research & development costs	$ 3,960,191	$ 8,096,095	$ (4,135,904)	(51)%
General & administrative expenses	4,559,265	5,471,010	(911,745)	(17)%
Total expense	$ 8,519,456	$ 13,567,105	$ (5,047,649)	(37)%

Research and Development Expenses

The decrease of approximately $4,136,000 or 51% in research and development expenses was primarily attributable to (i) a $1,580,000 decrease in costs related to our completed NS-189 Phase 2 clinical trial, (ii) a $982,000 decrease in our personnel, facility and other expenses due to our ongoing corporate restructuring and cost reduction efforts (iii) a $958,000 decrease in non-cash share-based compensation expense and (iv) a $497,000 increase in reimbursements under our research grants.

General and Administrative Expenses

The decrease of approximately $912,000 or 17% in general and administrative expenses was primarily attributable to (i) a $1,064,000decrease in personnel, facility and related expenses due to our ongoing corporate restructuring and cost reduction efforts and (ii) a $178,000 decrease in our non-cash share-based compensation expense partially offset by (iii) a $247,000 increase in tax and insurance expenses and (iv) a $84,000 increase in outsourced consulting and professional services expenses.

Other income (expense)

Other income (expense), net totaled approximately $3,335,000 and ($2,359,000) for the years ended December 31, 2018 and 2017, respectively.Other income, net in 2018 consisted of approximately $3,269,000 of non-cash gains related to the change in the fair value of our liability classified stock purchase warrants and $79,000 of interest income.

Other expense, net in 2017 consisted of approximately $1,470,000 of non-cash losses related to the change in the fair value of our liability classified stock purchase warrants, $564,000 of expense related to the issuance of inducement warrants, $243,000 of expense related to the liability classified warrants issued in conjunction with our August 2017 capital raise and $159,000 of interest expense related primarily to our long-term debt, partially offset by $70,000 of interest income.

Liquidity and Capital Resources

Financial Condition

Since our inception, we have financed our operations through the sales of our securities, issuance of long-term debt, the exercise of investor warrants, and to a lesser degree from grants and research contracts as well as the licensing of our intellectual property to third parties.

We had cash and cash equivalents of approximately $4.0 million at March 31, 2019.On October 29, 2018, we closed a registered direct offering with institutional investors pursuant to which we received gross proceeds of $2.1 million.

Based on our expected operating cash requirements, we anticipate our current cash and investments on hand will be sufficient to fund our operations, into the third quarter of 2019. As explained in Note 1 to our financial statements and management has determined that there is substantial doubt about our ability to continue as a going concern.

We will require additional capital to pursue our acquisition and in-licensing strategy and continue our pre-clinical and clinical development plans. To continue to fund our operations and the development of our product candidates we anticipate raising additional cash through the private and public sales of equity or debt securities, collaborative arrangements, licensing agreements or a combination thereof. Although management believes that such funding sources will be available, there can be no assurance that any such collaborative arrangement will be entered into or that financing will be available to us when needed in order to allow us to continue our operations, or if available, on terms acceptable to us. If we do not raise sufficient funds in a timely manner, we may be forced to curtail operations, delay or stop our ongoing clinical trials, cease operations altogether, or file for bankruptcy. We currently do not have commitments for future funding from any source. We cannot assure you that we will be able to secure additional capital or that the expected income will materialize. Several factors will affect our ability to raise additional funding, including, but not limited to market conditions, interest rates and, more specifically, our progress in our exploratory, preclinical and future clinical development programs.

Cash Flows – 2019 compared to 2018

	Three Months ended March 31,		Favorable (Unfavorable)	
	2019	2018	$	%
Net cash used in operating activities	$ (1,665,905)	$ (1,846,949)	$ 181,044	10%
Net cash provided by investing activities	$ -	$ 5,000,000	$ (5,000,000)	100%
Net cash used in financing activities	$ (117,019)	$ (104,244)	$ (12,775)	(12%)

Net Cash Used in Operating Activities
The decrease in our use of cash in operating activities of approximately $181,000 was primarily due to an increase in our net loss adjusted for certain non-cash items, including share-based compensation, write-off of a related party receivable and change in the fair value of liability classified warrants along with a decrease in bonus payments.

Cash used in operating activities for the three months ended March 31, 2019, of approximately $1,666,000 reflects our $3,114,000 loss for the period adjusted for certain non-cash items including: (i) $338,000 of share-based compensation (ii) $340,000 related to the change in fair value of our liability classified warrants and (iii) $730,000 of net cash inflows related to changes in operating assets and liabilities.

Net Cash (Used in) Provided by Investing Activities
There were no investing activities in the three months ended March 31, 2019

For the three months ended March 31, 2018 cash provided by investing activities was comprised solely of proceeds from the maturity of our short-term investments.

Net Cash Used in by Financing Activities
For the three months ended March 31, 2019 and 2018, cash used in financing activities consisted solely of payments on our short-term debt.

Future Liquidity and Needs
We have incurred significant operating losses and negative cash flows since inception. We have not been able to generate significant revenues nor achieved profitability and may not be able to do so in the future. We do not expect to be profitable in the next several years, but rather expect to incur additional operating losses. We have limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain our product development efforts, for acquisition of technologies and intellectual property rights, for preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, for general and administrative expenses and other working capital requirements. We rely on cash balances and the proceeds from the offering of our securities, exercise of outstanding warrants and grants to fund our operations.

We intend to pursue opportunities to obtain additional financing in the future through the sale of our securities and additional research grants. On June 23, 2017, our shelf registration statement (Registration No. 333-218608), which replaced our prior expiring shelf registration statement, was declared effective by the SEC. Under such replacement shelf registration statement, we can offer and sell up to $100 million of our securities. Through April 30, 2019 we have sold approximately $12.6 million of securities under our shelf registration statement. Based on our current market capitalization, we are limited to the use of our shelf registration statement by Item I.B.6 of Form S-3. Accordingly, we can only issue up to one-third of our market capitalization every twelve months. As a result of our October 2018 offering, we have exhausted our ability to use our shelf registration statement until October of 2019 or until such time as our market capitalization increases.

As explained in the notes to our financial statements, if we are not able to raise additional funds when needed, there would continue to be substantial doubt as to our ability to continue as a going concern. The source, timing and availability of any future financing will depend principally upon market conditions, interest rates and, more specifically, current and future progress in our exploratory, preclinical and clinical development programs. Funding may not be available when needed, at all, or on terms acceptable to us. Lack of necessary funds may require us, among other things, to delay, scale back or eliminate some or all of our research and product development programs, planned clinical trials, and/or our capital expenditures or to license our potential products or technologies to third parties.

OUR BUSINESS

We are primarily focused on the research and development of nervous system therapies based on our proprietary human neural stem cells and our small molecule compounds with the ultimate goal of gaining approval from the United States Food and Drug Administration ("FDA"), and its international counterparts, to market and commercialize such therapies. Recently, we have also began an in-licensing and acquisition strategy in which we are evaluating novel therapeutics with the potential to be complimentary to our current technologies or that could benefit from our development experience with the goal of developing such technologies for commercialization.

Our patented technology platform has three core components:

- Over 300 lines of human, regionally specific neural stem cells, some of which have the potential to be used to treat serious or life-threatening diseases through direct transplantation into the central nervous system;
- Proprietary screening capability – our ability to generate human neural stem cell lines provides a platform for chemical screening and discovery of novel compounds against nervous system disorders; and
- Small molecules that resulted from Neuralstem's neurogenesis screening platform that may have the potential to treat wide variety of nervous system conditions.

To date, our technology platform has produced two lead assets in clinical development: our NSI-566 stem cell therapy program and our NSI-189 small molecule program.

We believe our technology, in combination with our expertise, and established collaborations with major research institutions, could facilitate the development and commercialization of products for use in the treatment of a wide array of nervous system disorders including neurodegenerative conditions and regenerative repair of acute and chronic disease.

In-licensing or Acquisition Strategy

We have initiated an in-licensing or acquisition strategy to further expand our product pipeline. Our in-licensing strategy consists of evaluating early clinical or late preclinical stage opportunities in therapeutic areas that can benefit from our current product candidates or core expertise in drug development. Such in-licensing or acquisition opportunities may be in stem cell related technologies, CNS or in other therapeutic areas. We believe that this element of our corporate strategy could diversify the risks inherent in focusing on limited therapeutic areas and could increase our probability of commercial success.

Clinical Programs

We have devoted our efforts and financial resources primarily to the pre-clinical and clinical development of our small molecule compounds and our stem cell therapeutics. Below is a description of our most advanced clinical programs.

Based on our current cash position, we have greatly curtailed our development efforts with regard to our pre-clinical and clinical studies except with respect to our exploratory phase 2 study of NSI-566 for the treatment of Ischemic Stroke (the results of which will not be able to be used in connection with any regulatory filing in any territory) and studies that are being funded by grants. Additionally, we have increased our focus and efforts on our in-licensing and acquisition strategy that we announced earlier this year. In the event we are able to secure adequate additional financing, we will review existing programs with regard to re-initiating active development.

NSI - 566 (Stem Cells)

The human central nervous system (CNS) has limited capacity for regeneration following injury or the onset of disease. Traditional therapies have mainly focused on minimizing the progression or symptoms of CNS disease or injury but have not been effective at repairing the underlying cause of such disease. The goal of our cell therapy initiatives is the regeneration of neural function which has been lost to disease or injury. We believe that neuroprotection, neuroregeneration, and/or bridging of damaged neural circuitry may be accomplished by implantation of NSI-566 at the injury site.

Our proprietary technology enables the isolation and large-scale expansion of regionally specific neural stem cells from all areas of the developing human brain and spinal cord and enables the generation of commercially useful quantities of highly characterized allogeneic human neural stem cells that can be transplanted into patients to mitigate the consequences of CNS diseases or injury. We have developed and optimized processes that allow us to manufacture these cells under Good Manufacturing Practices or cGMP compliant conditions as required by the FDA for use in clinical trials and have generated cell banks which we believe are sufficient to provide material to meet all our requirements through to completion of Phase 3 studies. We have exclusive licenses for the manufacturing and use of the surgical platform and cannula that enable administration of the cells to the spinal cord for treatment. Based on our preclinical data we believe that our human neural stem cells will differentiate into neurons and glia after grafting into the patient and will provide neuroprotection and stimulate neuroregeneration.

Our lead stem cell program is the spinal cord-derived neural stem cell line, NSI-566, which is being tested for treatment of paralysis due to Amyotrophic Lateral Sclerosis (ALS, or Lou Gehrig's disease), stroke, and spinal cord injury ("SCI"). To date we have completed Phase 1 and Phase 2 safety and dose escalation studies in subjects with ALS and a Phase1 safety and dose escalation study in subjects with motor deficits due to ischemic stroke. Each of these studies are currently in their long-term follow-up stage. In August 2018, we initiated an exploratory randomized, double-blind, sham-surgery controlled Phase 2 trial for the treatment of ischemic stroke (the results of which will not be able to be used in connection with any regulatory filing in any territory). We are also conducting a Phase 1 open label study to evaluate the safety of implanting NSI-566 in subjects with chronic SCI.

Amyotrophic Lateral Sclerosis

Amyotrophic lateral sclerosis is a disease of the nerve cells in the brain and spinal cord that control voluntary muscle movement. In 2016 the Centers for Disease Control and Prevention estimated that between 14,000 and 15,000 Americans have ALS. In ALS, nerve cells (motor neurons) waste away or die and can no longer send messages to muscles. This eventually leads to muscle weakening, twitching, and an inability to move the arms, legs, and body. As the condition progresses, muscles in the chest area stop working, making it difficult or impossible to breathe. NSI-566 is under development as a potential treatment for ALS by providing cells designed to nurture and protect the patient's remaining motor neurons; and possibly repair some motor neurons which have not yet died but which are diseased. We received orphan designation by the FDA for NSI-566 in ALS.

Motor Deficits Due to Ischemic Stroke

Ischemic stroke, the most common type of stroke, occurs as a result of an obstruction within a vessel supplying blood to the brain. In the US, approximately 1.8 million people live with paralysis due to stroke. Post-stroke motor deficits include paralysis in arms and legs and speech impairment and can be permanent. We believe that NSI-566 may provide an effective treatment for restoring motor deficits resulting from ischemic stroke by both creating new circuitry in the area of injury and through repairing and or nurturing diseased cells to improve function in patients.

Chronic Spinal Cord Injury

Spinal cord injury, or SCI, generally refers to any injury to the spinal cord that is caused by trauma instead of disease, although in some cases it can be the result of diseases. It is estimated that there are 17,000 new cases of SCI per year and that at any given time, there are estimated to be 288,000 people in the United States that are living with SCI. Chronic spinal cord injury (cSCI) refers to the time after the initial hospitalization. SCIs may be caused by trauma to the spinal cord resulting from motor vehicle accidents, falls, and penetrating injuries such as stab or gunshot wounds. We believe that NSI-566 may provide an effective treatment for cSCI by "bridging the gap" in the spinal cord circuitry created following traumatic spinal cord injury and providing new cells to help transmit the signal from the brain to points at or below the point of injury.

Clinical Experience with NSI-566

Ischemic Stroke

In 2013 we commenced an open label, exploratory Phase I safety and dose escalation study to test transplantation of NSI-566 in human subjects for the treatment of motor deficits due to ischemic stroke (the results of which will not be able to be used in connection with any regulatory filing in any territory). The trial was conducted at BaYi Brain Hospital in Beijing, China and sponsored by Suzhou Neuralstem, a wholly owned subsidiary of Neuralstem in China. This study was intended to evaluate the safety of direct injections of NSI-566 into the brain and to determine the maximum safe tolerated dose. We completed dosing the final cohort in March 2016, for a total of nine subjects. Subjects were monitored through a 24-month observational follow-up period. Delivery of NSI-566 cells in this population appeared to be safe and well tolerated at all doses.

In June 2018, we presented an abstract at the annual International Society of Stem Cell Research (ISSCR). In the study, 3 cohorts (n=3/cohort) were transplanted with ascending doses of NSI-566, which involved a one-time stereotactic, intracerebral injection of 1.2×10^7, 2.4×10^7, or 7.2×10^7 cells. Immunosuppression therapy with tacrolimus was maintained for 28 days At the 12-Month Visit, compared to Baseline, the mean Fugl-Meyer Motor Score (FMMS, total score of 100) showed 15.6 points of improvement (p=0.0078), the mean Modified Ranking Score (MRS) 0.8 points of improvement (p=0.031), and the mean NIH Stroke Scale (NIHSS) 3.2 points of improvement (p=0.016). The stem cell treatment appears well tolerated at all doses. There were no deaths or serious adverse events related to the treatment.

In August 2018, we initiated an exploratory Phase 2 trial which is a randomized, double-blind, sham-surgery controlled study (the results of which will not be able to be used in connection with any regulatory filing in any territory). Up to 24 eligible patients will be assigned either to receive NSI-566 stem cells (72 million cells) or sham-surgery at 1:1 ratio. All operations are being conducted at BaYi Brain Hospital, the site of the Phase 1 study, and all follow-up assessments are conducted by blinded, independent neurologists at Beijing Rehabilitation Hospital. To date, 16 subjects have been treated.

Amyotrophic Lateral Sclerosis

In January 2010, we commenced a Phase 1 trial of NSI-566 in ALS at Emory University in Atlanta, Georgia. The purpose of the trial was to evaluate the safety of our proposed treatment and procedure in a total of 15 subjects. The dosing of subjects in the Phase 1 trial, as designed, was completed in August of 2012. We commenced a Phase 2 clinical trial in subjects suffering from ALS in September of 2013 to further test the feasibility and safety of the treatment and procedure, and maximum tolerated dose of cells. The Phase 2 dose escalation trial enrolled 15 ambulatory subjects in five different dosing cohorts. Each patient in the final cohort had two separate surgeries.

We have completed all of the transplantations and the observation period of 24 months after the last surgery. The Phase 2 ALS clinical trial met the primary safety endpoints and established what we believe to be the maximum safe tolerated dose. In June 2017, 24-month Phase 2 and combined Phase 1 and Phase 2 data from our ALS trials were presented at the International Society for Stem Cell Research (ISSCR) Annual Meeting, Approaches to Treating ALS, Boston, Massachusetts, by principal investigator Eva Feldman, MD, PhD, Russell N. DeJong Professor of Neurology and Director of Research of the ALS Clinic at the University of Michigan Health. The data showed that the intraspinal transplantation of the cells was safe and well tolerated. Subjects from both the Phase 1 and Phase 2 continue to be monitored for long-term follow-up evaluations.

To date, substantially all of the clinical costs of our ALS studies have been funded by grants.

Chronic Spinal Cord Injury

In 2013, we received authorization from the FDA to commence a Phase 1 clinical trial to treat chronic spinal cord injury. The trial, which is taking place at The University of California, San Diego or UCSD, commenced in 2014 and the first subject was treated in October 2014. The study enrolled four AIS A classification thoracic spinal cord injury subjects (motor and sensory complete), one to two years' post-injury at the time of stem cell treatment. In January of 2016 we reported six-month follow-up data on all four subjects. The stem cell treatment was found to be safe and well-tolerated by the subjects enrolled and there were no serious adverse events.

In June 2018, the study investigators published the results of the first cohort in the journal Cell Stem Cell. The results support the potential of transplanted NSI-566 to benefit patients with cSCI. At 18 months to 27 months after surgery, the analysis of motor and sensory function and electrophysiology showed changes in three of the four patients after NSI-566 transplantation. There was no evidence of serious adverse events, suggesting the procedure is well-tolerated.

Substantially all of the clinical costs of this study have been, and will continue to be, funded by grants arranged through UCSD.

NSI-189 (Small Molecule Pharmaceutical Compound).

NSI-189, a new chemical entity with what we believe to work through a novel mechanism of action and stimulates neurogenesis of human hippocampus derived neural stem cells in vitro and neurogenesis in mouse hippocampus in vivo. Because studies have linked depression with impaired hippocampal neurogenesis, we believe that NSI-189 may provide an effective treatment for patients suffering from Major Depressive Disorder or MDD by promoting synaptogenesis or neurogenesis in the hippocampus.

Major Depressive Disorder (MDD)

Major depressive disorder (also known as recurrent depressive disorder, clinical depression, major depression, unipolar depression, or unipolar disorder) is a mental disorder characterized by episodes of all-encompassing low mood accompanied by low self-esteem and loss of interest or pleasure in normally enjoyable activities. According to the World Health Organization, MDD is the leading cause of disability in the U.S. for persons age 15 to 44. In 2015, an estimated 16.1 million adults aged 18 or older in the United States had at least one major depressive episode in the prior year. This number represented 6.7% of all U.S. adults[1]. Treatment of MDD is characterized by a high level of patient turnover due to low efficacy and high side effects. It is estimated that 67% of patients will fail their first line therapy, 75% will then fail their second line prescription and 80% will then fail their third line prescription[2]. These factors combine to create a significant opportunity for a differentiated therapeutic agent, particularly one that may act through a novel mechanism of action.

Clinical Experience with NSI-189

Major Depressive Disorder
We have completed an exploratory Phase 2 randomized, placebo-controlled, double-blind clinical trial for the treatment of MDD in an outpatient setting. The study randomized 220 subjects into three cohorts: NSI-189 40 mg twice daily (BID), NSI-189 40 mg once daily (QD), or placebo. After the initial screening period, the dosing portion of the trial was 12 weeks in duration. There was a two week wash out period for those subjects enrolled who were taking an anti-depressant at the time of screening.

The study was 80% powered to show an improvement in the primary endpoint, compared to placebo, with an assumed effect size of Cohen's d=0.5 ($p \leq 0.05$). Subjects eligible for the study had to be diagnosed with major depressive disorder, recurrent, as per Diagnostic and Statistical Manual of Mental Disorders V^3, scoring 20 or greater on the MADRS, at screening and baseline and experiencing at least one eight-week MDD episode. The MADRS score was confirmed to be 20 or greater via remote SAFER interview by an independent rater prior to the baseline visit. After the 12-week trial period, eligible subjects were given the opportunity to enroll in a separate six-month observational study to assess the durability of effect defined as the time until the start of a new antidepressant treatment (ADT). Both the interventional and the observational studies were conducted under the direction of study principal investigator (PI) Maurizio Fava, MD, Executive Vice Chair, Department of Psychiatry and Executive Director, Clinical Trials Network and Institute, Massachusetts General Hospital.

On July 25, 2017, we announced top-line results from the trial. The study did not meet its primary efficacy endpoint of a statistically significant reduction in depression symptoms on the Montgomery-Asberg Depression Rating Scale (MADRS), compared to placebo. Both doses were well-tolerated with no serious adverse events reported.

On December 5, 2017, we presented an updated analysis – including reports on all secondary scales – from the Phase 2 study of NSI-189 in MDD at the 56th American College of Neuropsychopharmacology (ACNP) Annual Meeting. Three additional patient reported outcomes showed statistically significant improvements in depressive and cognitive symptoms: Symptoms of Depression Questionnaire (SDQ): 40mg, p=0.044, Cognitive and Physical Functioning Questionnaire (CPFQ): 40 mg; p = 0.035, and Quick Inventory of Depressive Symptomatology Scale (QIDS-SR): 40 mg; p = 0.040 (Stage 2). Thus, with all three patient reported outcome scales (SDQ, CPFQ, and QIDS-SR) NSI-189 reached statistical significance over placebo.

In addition, we presented data on NSI-189's effect on cognition as measured by computer-administered objective tests of cognition in the MDD patients. Two different test methods were used: Cogstate® and CogScreen®. Cogstate did not yield statistically significant results. In CogScreen® test, NSI-189 40 mg showed statistically significant improvement ($p<0.05$) on objective measures of executive functioning, attention, working memory, and memory.

NSI-189 appeared to be safe and well tolerated with no serious adverse events. There were no clinically meaningful changes in body weight or BMI, or in sexual function inventory. The study results have been published (Papakostas GI, et al. (2019). Mol Psychiatry. 2019 Jan 9. doi: 10.1038/s41380-018-0334-8. [Epub ahead of print] PubMed PMID: 30626911).

Our Technologies

Stem Cells

From a therapeutic perspective, our stem cell-based technology enables the isolation and large-scale expansion of regionally specific, human neural stem cells from all areas of the developing human brain and spinal cord thus enabling the generation of physiologically relevant human neurons of different types. We believe that our stem cell technology will enable the replacement or supplementation of malfunctioning or dead cells thereby creating a neurotrophic environment that offers protection to neural tissue as a way to treat disease and injury. Many significant and currently untreatable human diseases arise from the loss or malfunction of specific cell types in the body. Our focus is the development of effective methods to generate replacement cells from neural stem cells. We believe that creating a neurotrophic environment by replacing damaged, malfunctioning or dead neural cells with fully functional ones may be a useful therapeutic strategy in treating many diseases and conditions of the central nervous system.

Our Proprietary and Novel Screening Platform

Our human neural stem cell lines form the foundation for functional cell-based assays used to screen for small molecule compounds that can impact biologically relevant outcomes such as neurogenesis, synapse formation, and protection against toxic insults. We have developed over 300 unique stem cell lines representing multiple different regions of the developing brain and spinal cord at multiple different time points in development, enabling the generation of physiologically relevant human neural cells for screening, target validation, and mechanism-of-action studies. This platform provides us with a unique and powerful tool to identify new chemical entities to treat a broad range of nervous system conditions. NSI-189 was discovered using our stem cell-based screening platform.

Small Molecule Pharmaceutical Compounds.

Utilizing our proprietary stem cell-based screening capability, we have discovered and patented a series of small molecule compounds. We believe our low molecular weight organic compounds can efficiently cross the blood/brain barrier. In mice, research indicated that the small molecule compounds both stimulate neurogenesis of the hippocampus and increase its volume. We believe the small molecule compounds may promote synaptogenesis and neurogenesis in the human hippocampus thereby providing therapeutic benefits in indications such as MDD and may also provide clinical benefit in indications such as Angelman Syndrome, Diabetic Neuropathy, Cognition, Stroke and Radiation Induced Cognitive Deficit.

Research

Substantial resources have been and will be devoted to our research programs. Our efforts are directed at developing therapies utilizing our stem cells and small molecule regenerative drug candidates. This research is conducted internally, through the use of third party laboratories, consulting companies under our direct supervision, and through collaboration with academic institutes.

Manufacturing

We currently manufacture our cells both in-house and on an outsourced basis. We outsource the manufacturing of our pharmaceutical compounds and our clinical supply of stem cells to cGMP compliant third-party manufacturers. We manufacture neural stem cells in-house for use in our research and collaborative programs.

Intellectual Property

We believe that we have developed and maintain a strong portfolio of patents and patent applications that form the proprietary base for our research and development efforts. We own or exclusively license 20 United States issued and pending patents and over 60 foreign issued and pending patents in the field of regenerative medicine, related to our stem cell technologies as well as our small molecule compounds. Our issued patents have expiration dates ranging from 2023 through 2035.

When appropriate, we seek patent protection for inventions in our core technologies and in ancillary technologies that support our core technologies or which we otherwise believe will provide us with a competitive advantage. We accomplish this by filing patent applications for discoveries we make, either alone or in collaboration with scientific collaborators and strategic partners. Typically, although not always, we file patent applications both in the United States and in select international markets. In addition, we plan to obtain licenses or options to acquire licenses to patent filings from other individuals and organizations that we anticipate could be useful in advancing our research, development and commercialization initiatives and our strategic business interests.

In addition to patenting our technologies, we also rely on confidential and proprietary information and take active measures to control access to that information, including the use of confidentiality agreements with our employees, consultants and certain of our contractors.

Our policy is to require our employees, consultants and significant scientific collaborators and sponsored researchers to execute confidentiality and assignment of invention agreements upon the commencement of an employment or consulting relationship with us. These agreements generally provide that all confidential information developed or made known to the individual by us during the course of the individual's or entity's relationship with us, is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees and consultants, the agreements generally provide that all inventions conceived by the individual or entity in the course of rendering services to us shall be our exclusive property.

The patent positions of pharmaceutical and biotechnology companies, including ours, are uncertain and involve complex and evolving legal and factual questions. The coverage sought in a patent application can be denied or significantly reduced before or after the patent is issued. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, or if any existing or future patents will provide significant protection or commercial advantage or will be circumvented by others. Since patent applications are secret until the applications are published (usually eighteen months after the earliest effective filing date), and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we were the first to make the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions. There can be no assurance that patents will issue from our pending or future patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products, or not be challenged or declared invalid.

In the event that a third party has also filed a patent application relating to inventions claimed in our patent applications, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office or USPTO, to determine priority of invention, which could result in substantial uncertainties and costs, even if the eventual outcome is favorable to us. There can be no assurance that our patents, if issued, would be held valid by a court of competent jurisdiction.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have been issued patents relating to cell therapy, stem cells and other technologies potentially relevant to or required by our proposed products. We cannot predict which, if any, of such applications will issue as patents or the claims that might be allowed.

If third party patents or patent applications contain claims infringed by our technology and such claims are ultimately determined to be valid, there can be no assurance that we would be able to obtain licenses to these patents at a reasonable cost, if at all, or be able to develop or obtain alternative non-infringing technology. If we are unable to obtain such licenses or develop or obtain alternative non-infringing technology at a reasonable cost, we may not be able to develop certain products commercially. There can be no assurance that we will not be obliged to defend ourselves in court against allegations of infringement of third party patents. Patent litigation is very expensive and could consume substantial resources and create significant uncertainties. An adverse outcome in such a suit could subject us to significant liabilities to third parties, require us to seek licenses from third parties, or require us to cease using such technology.

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly evolving technology and intense competition. Our competitors include major multinational pharmaceutical companies, specialty biotechnology companies and chemical and medical products companies. Many of these companies are well-established and possess greater resources for technical, research, development, financial, sales and marketing initiatives than we do. Other, less well-established companies have formed or may form strategic collaborations, partnerships and other types of joint ventures with larger, well established industry competitors that may provide research and development and commercialization advantages to these competitors. Academic institutions, governmental agencies and other public and private research organizations are also conducting and financing research activities which may produce products directly competitive to those we are developing. Moreover, many of these competitors may be able obtain patent protection, or FDA and other regulatory approvals that may impede our freedom to develop and commercialize our programs.

The diseases and medical conditions we are targeting have a demographic in which there are large numbers of patients who do not respond to current therapies or have limited therapies available. Nevertheless, we expect that our technologies and product candidates, if or when approved, will compete with a variety of therapeutic products and procedures offered by other pharmaceutical and biotechnology companies. Many pharmaceutical and biotechnology companies are investigating new drugs and therapeutic approaches for the same or similar indications. These companies' efforts may achieve new efficacy profiles, extend the therapeutic window for such products, alter the prognosis of these diseases, or prevent their onset. We believe that our products, if or when approved, will attempt to compete with these products principally on the basis of improved and extended efficacy and safety and their overall economic benefit to the health care system. Competition for our products may be in the form of existing and new drugs, other forms of cell transplantation, surgical procedures, gene therapy or other proprietary technology and expertise. We expect that all of these products will compete with our product candidates, if or when approved, based on efficacy, safety, cost and intellectual property positions. We cannot be certain that that other entities have not filed patents that block our freedom to commercialize our programs and we may be required to seek licenses from these entities in order to commercialize certain of our proposed products, and such licenses may not be granted or be extremely expensive to obtain.

If we develop products that receive regulatory approval, they would then have to compete for market acceptance and market share. For our potential products, an important success factor will be the timing of market introduction of competitive products. This timing will be a function of the relative speed with which we and our competitors can develop products, complete the clinical testing and approval processes, and supply commercial quantities of a product to the market. These competitive products may also impact the timing of clinical testing and approval processes by limiting the number of clinical investigators and subjects available to test our potential products.

Government Regulation

Regulation by governmental authorities in the United States and other countries is a significant factor in our research and development and will be a significant factor in the manufacture and marketing of our proposed products. The nature and extent to which such regulation applies to us will vary depending on the nature of any products we may develop. Governmental authorities, including the FDA and comparable regulatory authorities in other countries, regulate the design, development, testing, manufacturing, safety, efficacy, labeling, storage, record-keeping, advertising, promotion and marketing of pharmaceutical products, including drugs and biologics, under the Federal Food, Drug, and Cosmetic Act, or FFDCA, and its implementing regulations, and, for biologics, under the Public Health Service Act, or PHSA, and its implementing regulations. Non-compliance with applicable requirements can result in fines and other judicially imposed sanctions, including product seizures, import restrictions, injunctive actions and criminal prosecutions of both companies and individuals. In addition, administrative remedies can involve requests to recall violative products; the refusal of the government to enter into supply contracts; or the refusal to approve pending product approval applications until manufacturing or other alleged deficiencies are brought into compliance. The FDA also has the authority to cause the withdrawal of approval of a marketed product or to impose labeling restrictions. The process of obtaining approvals and the subsequent compliance with appropriate statutes and regulations require the expenditure of substantial time and money, and there can be no guarantee that approvals will be granted.

United States Product Development Process

We believe that, in the United States, our human neural stem cell candidates are regulated as biologic pharmaceuticals, or biologics, and our small-molecule compounds are regulated as drugs.

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

- Completion of preclinical testing of new pharmaceutical or biological products, generally conducted in the laboratory and in animal studies in accordance with GLP standard, and applicable requirements for the humane use of laboratory animals or other applicable regulations to evaluate the potential efficacy and safety of the product candidate;
- Submission of the results of these studies to the FDA as part of an Investigational New Drug application, which must become effective before clinical testing in humans can begin;
- Manufacturing of investigational medicine under cGMP standard;
- Performance of adequate and well-controlled human clinical trials according to GCPs and any additional requirements for the protection of human research patients and their health information, to establish the safety and efficacy of the product candidate for its intended use;
- Submission to the FDA of a biological license application, or BLA, for any biologic or a new drug application, or NDA, for any new chemical entity drug we seek to market that includes substantive evidence of safety, purity, and potency, or safety and effectiveness from results of nonclinical testing and clinical trials;
- Satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the product is produced, packaged and distributed, to assess compliance with cGMPs, to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity, and, if applicable, the FDA's current good tissue practices, or GTPs, for the use of human cellular and tissue products;
- Potential FDA audit of the nonclinical study and clinical trial sites that generated the data in support of the BLA or NDA; and
- FDA review and approval of the NDA, or licensure, of the BLA.

Typically, human clinical evaluation involves a time-consuming and costly three-phase process.

- Phase 1. The product is initially introduced into healthy human volunteers and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- Phase 2. The product is evaluated in 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, optimal dosage and dosing schedule.
- Phase 3. Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency, and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk to benefit ratio of the product and provide an adequate basis for product labeling.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be required and conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor or its data safety monitoring board may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk, including risks inferred from other unrelated similar trials. Similarly, an institutional review board, or 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 product has been associated with unexpected serious harm to patients.

Human cell-based therapies in the field of regenerative medicine are relatively novel. Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the trial period, the number of patients the FDA will require to be enrolled in the trials in order to establish the safety, efficacy, purity and potency of such products, or that the data generated in these trials will be acceptable to the FDA to support marketing approval.

United States Review and Approval Process

After the completion of clinical trials of a product candidate, FDA approval of a BLA or NDA must be obtained before commercial marketing of the product. The BLA or NDA must include results of product development, laboratory and animal studies, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information as well as a significant user fee. The FDA may grant deferrals for submission of data, or full or partial waivers. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA or NDA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

The FDA may refuse to file any BLA or NDA that it deems incomplete or not properly reviewable at the time of submission, and may request additional information. Once the submission is accepted for filing, the FDA reviews the BLA or NDA to determine, among other things, whether the proposed product is safe, potent, and/or effective for its intended use, and has an acceptable purity profile, and whether the product is safe and effective for its intended use, and in each case, whether the product is being manufactured in accordance with cGMP or GTP, if applicable. During the product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the BLA or NDA must submit a proposed REMS. The FDA will not approve a BLA or NDA without a REMS, if required.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA or NDA does not satisfy its regulatory criteria for approval and deny approval via a letter detailing such deficiencies. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data. If the FDA denies an application, the applicant may either resubmit the BLA or NDA, addressing all of the deficiencies identified by the FDA, or withdraw the application.

United States Post-Approval Requirements

Any products for which we receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, and complying with FDA promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting products for uses or in patient populations that are not described in the product's approved uses, known as off-label use, limitations on industry-sponsored scientific and educational activities and requirements for promotional activities involving the internet.

In addition, quality control and manufacturing procedures must continue to conform to applicable manufacturing requirements after approval to ensure the long-term stability of the product. We rely, and expect to continue to rely, on third parties for the production of some, or all, clinical and commercial quantities of our products in accordance with cGMP and GTP regulations, as applicable. Manufacturers and other entities involved in the manufacture and distribution of approved products are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP, GTP and other laws.

The FDA also may require post-marketing testing, known as Phase 4 testing, and surveillance to monitor the effects of an approved product. Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, warning letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties, among others. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our product candidates under development.

European, China and Other Regulatory Review and Approval

Whether or not FDA approval has been obtained, approval of a product by comparable regulatory authorities in Europe, China and other countries will be necessary prior to commencement of marketing the product in such countries. The regulatory authorities in each country may impose their own requirements and may refuse to grant an approval, or may require additional data before granting it, even though the relevant product has been approved by the FDA or another authority. As with the FDA, the regulatory authorities in the European Union, China and other developed countries have lengthy approval processes for biological and pharmaceutical products. The process for gaining approval in particular countries varies, but generally follows a similar sequence to that described for FDA approval.

Other Health Care Laws

In the event any of proposed products are ever approved for marketing, we may also be subject to healthcare regulation and enforcement by the federal government and the states and foreign governments where we may market our product candidates, if approved. These laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, physician sunshine and privacy and security laws and regulations.

Other Regulations

We are also subject to various U.S. federal, state, local and international laws, regulations and recommendations relating to safe working conditions, laboratory and manufacturing practices and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents, used in connection with our business. We cannot accurately predict the extent of government regulation which might result from future legislation or administrative action.

Employees

As of April 30, 2019, we had five (5) full-time employees. We also use the services of several outside consultants in business and scientific matters.

Our Corporate Information

We were incorporated in Delaware in 2001. Our principal executive offices are located at 20271 Goldenrod Lane, Germantown, Maryland 20876, and our telephone number is (301) 366-4841. Our website is located at www.neuralstem.com.

We have not incorporated by reference into this report the information in, or that can be accessed through, our website and you should not consider it to be a part of this report.

PROPERTIES

We currently operate one facility located in the United States and one facility located in China. Our corporate offices and primary research facilities are located in Germantown, Maryland, where we lease approximately 1,500 square feet. This lease provides for monthly payments of approximately $5,700 per month. Our prior lease expired on December 31, 2018. We are currently operating on a month-to-month lease as we negotiate an extension.

In 2015, we entered into a lease consisting of approximately 3,100 square feet of research space in San Diego, California. This lease provides for current monthly payments of approximately $12,000 and expires on August 31, 2019. In May 2017, we ceased-use of this property and in April 2018, we entered into an agreement for the sub-lease of the property.

LEGAL PROCEEDINGS

As of the date hereof, there are no material pending legal or governmental proceedings relating to our company or properties to which we are a party, and to our knowledge there are no material proceedings to which any of our directors, executive officers or affiliates are a party adverse to us or which have a material interest adverse to us.

OUR MANAGEMENT

Directors, Executive Officers and Significant Employees

The names of our directors and executive officers and their ages, positions, and biographies as of July 18, 2019, are set forth below. Our executive officers are appointed by, and serve at, the discretion of the Board. There are no family relationships among any of our directors or executive officers.

Name	Position	Age	Position Since
Named Executive Officers			
Kenneth Carter, PhD	Executive Chairman	59	2019
Independent Directors			
Scott V. Ogilvie	Director	65	2007
William Oldaker	Director	78	2007
Cristina Csimma, Pharm.D, MHP	Director	60	2017
Sandford D. Smith	Director	72	2014
Binxian Wei	Director (Series A Preferred)	49	2019
David J. Mazzo, PhD	Director	62	2019
Mary Ann Gray, Ph.D.	Director	66	2019

Kenneth Carter PhD,, has served as our executive chairman since January 2019. Dr. Carter has over 20 years of experience working in positions of substantial responsibility in the development and operations of early-stage biotechnology companies. Since 2010 when he co-founded the company, Dr. Carter has served as chairman of the board of directors of Noble Life Sciences, a private biotechnology company in Maryland. From 2011 through 2017, Dr. Carter served as president and chief executive officer of Neximmune, Inc., a private biopharmaceutical company in Maryland. He continues to serve as senior advisor of NexImmune. Prior to that, from 1999 through 2009, Dr. Carter served as president and chief executive officer of Avalon Pharmaceuticals, Inc. (NASDAQ: AVRX) until the company merged with Clinical Data, Inc. Dr. Carter also currently serves on the following boards of directors (i) since 2016, Antidote Therapeutics, Inc., a private biopharmaceutical company in Maryland, (ii) since 2011, BetaCat Pharmaceuticals, a private pharmaceutical company in Texas, and Maryland BioHealth Innovation, a biotechnology intermediary company in Maryland, and (iii) since 2007, Maryland Health Care Product Development Corporation, a biotechnology investment firm in Maryland. Dr. Carter additionally serves as a lecturer and Adjunct Faculty member of Johns Hopkins University in Maryland. Dr. Carter holds a BS in Biology and Chemistry from Abilene Christian University, a Ph.D. in Human Genetics and Cell Biology from the University of Texas Medical Branch, and a Postdoctoral degree in Cell and Molecular Biology from University of Massachusetts Medical School. In evaluating Dr. Carter's specific experience, qualifications, attributes and skills in connection with his appointment to our board, we took into account his prior work with both public and private organizations, including his experience in building biopharmaceutical organizations, his strong business development background and his past experience and relationships in the biopharma and biotech fields.

Scott V. Ogilvie, has served as a director on our board since February 2008. Mr. Ogilvie is currently the Executive Chairman of Formula Four Beverages, Inc., a functional beverage company that manufactures and sell OXiGEN water. Additionally, Mr. Ogilvie is currently the President of AFIN International, Inc., an international private equity and strategic advisory firm, which he founded in 2006. Prior to December 31, 2009, he was CEO of Gulf Enterprises International, Ltd, an investment and strategic advisory company with primary activities in the Middle East and North Africa. He held this position since August 2006. Mr. Ogilvie previously served as Chief Operating Officer of CIC Group, Inc., an investment manager, a position he held from 2001 to 2007. He began his career as a corporate and securities lawyer with Hill, Farrer & Burrill, and has extensive public and private corporate management and board experience in finance, real estate, and life science and technology companies. During the past 5 years, Mr. Ogilvie has served on the board of directors of Inpsyr Therapeutics, Inc. (OTCQB: NSPX) and Oxigenesis, Inc. and the Advisory Board of Profusa, Inc.. In evaluating Mr. Ogilvie's specific experience, qualifications, attributes and skills in connection with his appointment to our board, we took into account his prior work in both public and private organizations regarding corporate finance, securities and compliance and international business development.

William Oldaker, has served on our board of directors since April 2007. Mr. Oldaker is a founder and partner in the Washington, D.C. law firm of Oldaker Group LLC. Prior to founding the firm in 1993, Mr. Oldaker was a partner in the Washington office of the law firm of Manatt, Phelps and Phillips from 1987 to 1993. In 2004, Mr. Oldaker was a founder of Washington First Bank in Washington, D.C. and serves as a member of the board of directors. He previously served as a director of Century National Bank, from 1982 until its acquisition in 2001. Mr. Oldaker was appointed by President Clinton to serve as a commissioner on the National Bioethics Advisory Commission, a post he held until 2001. He is a member of the Colorado, D.C. and Iowa Bar Associations, the Bar Association for the Court of Appeals, D.C., and the Bar of the United States Supreme Court. He is also a partner in The National Group, a consulting firm. In evaluating Mr. Oldaker's specific experience, qualifications, attributes and skills in connection with his appointment to our board, we took into account his extensive experience with managing and developing federal government regulations and expertise in the legislative process. He also was a founding member, and has served on the board of directors of a bank for almost thirty years.

Sandford D. Smith, has served on our board of directors since March 2014. Since December 2011, Mr. Smith has served as Founder and Chairman of Global Biolink Partners. From 1996 until 2011, Mr. Smith served in various senior and executive management positions at Genzyme Corporation (Formerly NASDAQ: GENZ), including Executive Vice President and President, International Group with responsibility for the commercial activities for Genzyme's products outside of the U.S. Prior to joining Genzyme, Mr. Smith served from 1986 to 1996 as President and Chief Executive Officer and a Director of Repligen Corporation, a formerly publicly traded biotechnology company. Mr. Smith previously held a number of positions with Bristol-Myers Squibb Company (NYSE: BMY) from 1977 to 1986, including Vice President of Business Development and Strategic Planning for the Pharmaceutical Group. Mr. Smith currently serves as a director of Cytokynetics, Inc. (NASDAQ: CYTK), Apricus Biosciences, Inc. (NASDAQ: APRI) and as chairman of Aegerion Pharmaceuticals, Inc. (NASDAQ: AEGR) and. Mr. Smith serves as a member of the President's Advisory Board of Brigham and Women's Hospital in Boston, member of the Advisory Board of Tullis Health Investors in Greenwich, and an advisor to BioNEST Partners in New York and Paris. Mr. Smith also is the founder of Smith Scholars, a medical residency program for physicians from resource-poor nations. In selecting Mr. Smith as a board member, the board took into account his history of marketing and developing of therapies targeted at rare disease or those with orphan designations as well as his general experience in the biotech industry.

Cristina Csimma Pharm. D, MHP,, has served on our board of directors since September 2017. She also serves on the Board of Directors of Idera Pharmaceuticals (NASDAQ: IDRA), a clinical stage biopharmaceutical company and T1D Exchange, a nonprofit research organization for type 1 diabetes. She also serves on various advisory boards, including: the Muscular Dystrophy Association Venture Philanthropy Scientific Advisory Committee; the Executive Oversight Board to the National Institutes of Health (NIH) NeuroNext Network; the Harvard and Brigham and Women's Hospital MRCT Center External Advisory Board, and the TREAT-NMD Advisory Committee for Therapeutics (TACT) She was previously the Executive Chair of the Board of Directors of Exonics Therapeutics, a Director of Juniper Pharmaceuticals (acquired in August 2018 by Catalent), Vtesse (acquired in March 2017 by Sucampo Pharmaceuticals) and Cydan, where she was also President and founding CEO, the Vice President of Drug Development at Virdante Pharmaceuticals Inc (acquired by Momenta), Principal at Clarus Ventures LLC, and held roles in Clinical Development and Translational Research at Wyeth (now Pfizer), Genetics Institute and Dana Farber Cancer Institute. Dr. Csimma holds both a Doctor of Pharmacy and a Bachelor of Science in Pharmacy from the Massachusetts College of Pharmacy and Allied Health Sciences, as well as a Master of Health Professions from Northeastern University. In selecting Dr. Csimma, the board took into account her vast experience in the pharmaceutical industry, including her successes in developing drugs for various diseases throughout her career.

Binxian Wei, has served on our board of directors since February 2019. He has been the V.P. of Darsheng Trade & Tech. Development Co, Ltd. (a subsidiary to Tianjin Tiayo Pharmaceutical Co., Ltd.) since 2015. He is responsible for API and finished dosage marketing for Chinese pharmaceutical companies. From 2008 through 2010, he worked as a business development manager for Sakai Trading. He holds a Master's degree in Mathematical & Computer Sciences from Colorado School of Mines, a Master's Degree and Bachelor's Degree in Chemical Engineering from Tianjin University in China. Bin-Xian Wei was appointed as the director representative of the Series A 4.5% Convertible Preferred Stock by Tianjin Pharmaceuticals Group International Holdings Co., LTD, the sole holder of the outstanding Series A 4.5% Convertible Preferred Stock.

David J. Mazzo, PhD, has served on our board of directors since June 2019. Dr. Mazzo brings over 35 years of experience in the pharmaceutical industry. Dr. Mazzo currently serves as President and Chief Executive Officer and a Director of Caladrius Biosciences (NASDAQ: CLBS), a late-stage therapeutics development biopharmaceutical company developing autologous cell therapies for select cardiovascular and autoimmune diseases. Dr. Mazzo also serves on the Board of Directors of EyePoint Pharmaceuticals (formerly known as pSivida Corp) (NASDAQ: EYPT), a biopharmaceutical company with a focus on products for the diseases of the eye. Previously, Dr. Mazzo served from August 2008 to October 2014 as Chief Executive Officer and as a member of the Board of Directors of Regado Biosciences, Inc., (NASDAQ: RGDO) a pharmaceutical company focused on the development of novel antithrombotic drug systems for acute and sub-acute cardiovascular indications. Prior to his leading Regado, from March 2007 to April 2008, Dr. Mazzo was President, Chief Executive Officer and a Director of Æterna Zentaris, Inc., (NASDAQ: AEZS), an international biopharmaceutical company. From 2003 until 2007, Dr. Mazzo served as President, Chief Executive Officer and a director of Chugai Pharma USA, LLC, a biopharmaceutical company which was the U.S. subsidiary of Chugai Pharmaceutical Co., Ltd. of Japan and a member of the Roche Group (Switzerland). Prior to joining Chugai, Dr. Mazzo held executive positions at several large international pharmaceutical companies, including: Schering-Plough Corporation, a publicly held pharmaceutical company that was subsequently acquired by Merck & Co., Inc. where he was also a Director of the Essex Chimie European subsidiary; Hoechst Marion Roussel, Inc., the US subsidiary of Hoechst AG, which was subsequently acquired by Sanofi, a multinational pharmaceuticals company; and Rhone-Poulenc Rorer, Inc., a subsidiary of Rhone-Poulenc SA, a French pharmaceuticals company, which was subsequently acquired by Hoechst AG. From October 2005 through January 2015, he also served on the board of directors of Avanir Pharmaceuticals, a biopharmaceutical company which was sold to Otsuka Holdings in 2015. Dr. Mazzo earned a B.A. in the Honors Program (Interdisciplinary Humanities) and a B.S. in Chemistry from Villanova University. In addition, Dr. Mazzo received his M.S. in chemistry and his Ph.D. degree in analytical chemistry from the University of Massachusetts, Amherst. He was also a research fellow at the Ecole Polytechnique Federale de Lausanne, Switzerland. In selecting Dr. Mazzo, the board took into account his vast experience in the pharmaceutical industry, as well as his service on other boards of directors in the biopharmaceutical industry.

Mary Ann Gray, Ph.D. has served on our board of directors since July 2019. From 2018 to current, Dr. Gray has served on the board of directors of Sarepta Therapeutics, Inc. From 2010 to 2018, Dr. Gray served as a member of the Board of Senomyx Inc., a biotechnology company working toward developing additives to amplify certain flavors and smells in foods. She served as a member of the compensation committee of Senomyx from May 2011 to November 2018, as the Chair of the Board and a member of the audit committee from May 2016 to November 2018, and as Lead Director from May 2017 to November 2018. Dr. Gray also served as a member of the Board and audit committee Chair of Juniper Pharmaceuticals, a women's health company, from April 2016 to August 2018. From November 2014 to December 2016, she served as a Board member of TetraLogic, a publicly-held clinical-stage biopharmaceutical company focused on oncology and infectious diseases. She served as the Chair of the audit committee of Tetralogic from March 2015 to December 2016. Dr. Gray also served as a Board member of Acadia Pharmaceuticals, focused on commercialization of CNS therapies, from 2005 to 2016, and served as a member of the audit committee from 2005 to 2016 and as a member of the compensation committee from 2010 to 2016. She served as a Board member of Dyax Corp., a rare disease company acquired by Shire in 2016, from 2001 to 2016, serving as a Lead Director from 2008 to 2016, a member of the audit committee from 2004 to 2012, a member of the nominating and corporate governance committee from 2001 to 2016, and Chair of the compensation committee from 2012 to 2016. Dr. Gray is the President of Gray Strategic Advisors, LLC, a biotechnology strategic planning and advisory firm. Dr. Gray has a distinguished scientific background, completing pharmacology research in tumor biology, including the impact of therapeutics on cardiac membranes and beginning her career in biotechnology as a scientist focused on new drug development. She subsequently worked in equities research before becoming a senior analyst and portfolio manager. Dr. Gray earned a B.S. from University of South Carolina, a Ph.D. in pharmacology from the University of Vermont, and completed her post-doctoral work at Northwestern University Medical School and at the Yale University School of Medicine. Our nominating and corporate governance committee believes that Dr. Gray's extensive experience in the biotechnology and biopharmaceutical industry qualifies her for service as a member of our Board.

CORPORATE GOVERNANCE

Board of Directors

Our Board consists of eight (8) members. Our business, property and affairs are managed under the direction of the Board. Members of the Board are kept informed of our business through discussions with the Executive Chairman and other officers, by reviewing materials provided to them and by participating in meetings of the Board and its committees.

Our Board is responsible for establishing broad corporate policies and for overseeing our overall management. In addition to considering various matters which require its approval, the Board provides advice and counsel to, and ultimately monitors the performance of, our senior management.

Classification of Board

Pursuant to our bylaws, we have a classified Board which is divided into three classes with staggered three-year terms. Only one class may be elected each year, while the directors in the other classes continue to hold office for the remainder of their three-year terms. The Board may, on its own, determine the size of the exact number of directors on the Board and may fill vacancies on the Board. Notwithstanding, the holder of our Series A 4.5% Convertible Preferred Stock has the right to appoint one board member. Binxian Wei has been appointed and currently serves as such director as of February 5, 2019. The procedure for electing and removing directors on a classified board of directors generally makes it more difficult for stockholders to change management control by replacing a majority of the board at any one time, and the classified board structure may discourage a third party tender offer or other attempt to gain control of the Company and may maintain the incumbency of directors. In addition, under our bylaws, directors may only be removed from office by a vote of the majority of the shares then outstanding and eligible to vote.

Independent Directors

Our common stock is listed on the NASDAQ Capital Market. As such, we are subject to the NASDAQ Stock Market LLC director independence standards. In accordance with these standards, in determining independence the Board affirmatively determines whether a director has a "material relationship" with Neuralstem that would compromise his or her independence from management or would cause him or her to fail to meet the NASDAQ's specific independence criteria. When assessing the "materiality" of a director's relationship with Neuralstem, the Board considers all relevant facts and circumstances, not merely from the director's standpoint, but from that of the persons or organizations with which the director has an affiliation, and, where applicable, the frequency and regularity of the services, and whether the services are being carried out at arm's length in the ordinary course of business. Material relationships can include commercial, consulting, charitable, familial and other relationships. A relationship is not material if, in the Board's judgment, it is not inconsistent with the NASDAQ'S director independence standards and it does not compromise a director's independence from management.

Corporate Governance Guidelines and Code of Ethics

We have adopted Corporate Governance Guidelines that are intended to ensure that our Board has the necessary authority and practices in place to review and evaluate our business operations and to make decisions that are independent of management. The Corporate Governance Guidelines are intended to align the interests of directors and management with those of our shareholders and establish practices for the Board with regard to its oversight of the Company. Under our guidelines, the Board conducts a self-evaluation to assess adherence to the Corporate Governance Guidelines and identify opportunities to improve Board performance. A copy of our codes can be viewed on our website at www.neuralstem.com under "Governance Documents" in the "Corporate Governance" section under the "Investors" tab.

In addition to our Corporate Governance Guidelines, we have adopted several guidelines intended to promote the honest and ethical conduct of our officers, directors, employees and consultants. They include, our "Code of Ethics" that applies to our officer, directors and employees and our "Finance Code of Professional Conduct" that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and any persons who participate in our financial reporting process. A copy of our codes can be viewed on our website at www.neuralstem.com under "Governance Documents" in the "Corporate Governance" section under the "Investors" tab.

The codes incorporate our guidelines designed to deter wrongdoing and to promote honest and ethical conduct and compliance with applicable laws and regulations. The codes also incorporate our expectations of our officers, directors and employees that enable us to provide accurate and timely disclosure in our filings with the SEC and other public communications. In addition, the codes incorporate guidelines pertaining to topics such as complying with applicable laws, rules, and regulations; reporting violations; and maintaining accountability for adherence to the codes.

We intend to disclose future amendments to certain provisions of our codes, or waivers of such provisions on our web site within four business days following the date of such amendment or waiver.

Stock Ownership Guidelines

On November 10, 2016, we adopted stock ownership guidelines for our Chief Executive Officer, Chief Scientific Officer and named executive officers. Under the guidelines, our CEO and CSO are expected to own shares of our common stock that have a value equal to 2x their respective annual salaries. All other named executive officers or Section 16 filing employees are expected to own shares of our common stock that have a value equal to 1x their respective annual salaries. Shares may be owned directly by the individual or owned jointly with or separately by the individual's spouse, or held in trust for the benefit of the individual, the individual's spouse or children. Share ownership requirements must be met within five years after first becoming subject to the guidelines.

Committees

We have established three (3) corporate governance committees comprised of the: (i) Audit Committee; (ii) Compensation Committee; and (iii) Governance and Nominating Committee. The committee membership and the function of each of the committees are described below. Each committee is governed by written committee charters. We periodically review such charters and may amend or update the process and procedures contained therein. In the event of such amendment or update, we will promptly post our revised charter on our website. In addition to our established committee, we may from time to time establish special committees as the Board deems necessary. A copy of each respective committee's charter can be viewed on our website at www.neuralstem.com under "Corporate Governance" under the "Investors" tab.

The table below identifies the Board's standing committees and committee membership as of July 18, 2019:

Director	Independent	Audit Committee	Governance and Nominating Committee	Compensation Committee
William Oldaker	Yes	Chair	---	Member
Scott Ogilvie	Yes	Member	Member	---
David J. Mazzo, PhD	Yes	---	Member	
Dr. Cristina Csimma	Yes	---	Chair	---
Sandford D. Smith	Yes	Member	---	Chair
Mary Ann Gray, Ph.D.	Yes	Member	---	---

Each member of the Audit Committee, the Compensation Committee and the Governing and Nominating Committee is considered independent under Nasdaq listing criteria.

Audit Committee

We have a designated audit committee in accordance with section 3(a)(58)(A) of the Exchange Act. The members of the Audit Committee are Messrs. Ogilvie, Oldaker and Smith and Dr. Gray. The main function of our Audit Committee is to oversee our accounting and financial reporting processes. The Audit Committee assists the Board in fulfilling its oversight and monitoring responsibility of reviewing the financial information provided to shareholders and others, appoints Neuralstem's independent registered public accounting firm, reviews the services performed by the independent registered public accounting firm and Neuralstem's finance department, evaluates Neuralstem's accounting policies and the system of internal controls established by management and the Board, reviews significant financial transactions, and oversees enterprise risk management.

The Board has determined that Messrs. Ogilvie, Oldaker and Dr. Gray are each an "audit committee financial expert" within the meaning of SEC rules. An audit committee financial expert is a person who can demonstrate the following attributes: (1) an understanding of generally accepted accounting principles and financial statements; (2) the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves; (3) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company's financial statements, or experience actively supervising one or more persons engaged in such activities; (4) an understanding of internal controls and procedures for financial reporting; and (5) an understanding of audit committee functions.

Governance and Nominating Committee

Our Governance and Nominating Committee's purpose is to assist our board of directors in identifying individuals qualified to become members of our board of directors consistent with criteria set by our board of directors, to oversee the evaluation of the board of directors and management, and to develop and update our corporate governance principles. Mr. Ogilvie and Drs. Mazzo and Csimma are the members of the Governance and Nominating Committee.

The Governance and Nominating Committee evaluates candidates for the Board. Candidates may come to the attention of the Governance and Nominating Committee through current Board members, professional search firms, stockholders or other persons. The Governance and Nominating Committee will consider nominees recommended by our stockholders.

Compensation Committee

The Compensation Committee reviews and approves the compensation arrangements for Neuralstem's executive officers, including the CEO, administers our equity compensation plans, and reviews the Board's compensation. Messrs. Smith, and Oldaker are members of the Compensation Committee.

Limitation on Liability and Indemnification of Directors and Officers

Our certificate of incorporation states that, to the fullest extent permitted by the Delaware General Corporate Law, or the DGCL, no director shall be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as director; provided, however, that this provision eliminating personal liability of a director shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

Section 174 of the DGCL provides, among other things, that a director who willfully and negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing the minutes of the meetings of the board of directors at the time the action occurred or immediately after the absent director receives notice of the unlawful acts.

Our certificate of incorporation and bylaws provide that we will indemnify our directors and officers and may indemnify our employees or agents to the fullest extent permitted by law against liabilities and expenses incurred in connection with litigation in which they may be involved because of their offices or positions with us. However, nothing in our certificate of incorporation or bylaws protects or indemnifies a director, officer, employee or agent against any liability to which that person would otherwise be subject by reason of willful misfeasance, bad faith, gross negligence or reckless disregard of the duties involved in the conduct of that person's office or position. To the extent that a director has been successful in defending any proceeding brought against him, the Delaware General Corporation Law provides that the director shall be indemnified against reasonable expenses incurred by him in connection with the proceeding.

EXECUTIVE COMPENSATION

Compensation Philosophy and Objectives

Our non-executive director and executive compensation programs impact all of our employees by establishing a general framework for compensation and creating a work environment focused on expectations, goals, and rewards. Because the performance of every employee is important to the overall success of the Company, our Board is mindful of the impact that our compensation programs have on all of our employees. In considering our compensation policies and practices, our Board balances the needs to conserve cash and minimize stockholder dilution against the requirements to attract, retain, and motivate our non-executive directors, executives and other employees while fostering an innovative and entrepreneurial corporate culture. Our Board strives to act in the long-term best interests of the Company and its stockholders, as well as ensure that the components of compensation do not, individually or in the aggregate, encourage excessive risk-taking.

Compensation-Setting Process

Role of the Board, Compensation Committee and Management

The Compensation Committee is responsible for overseeing, determining, recommending and approving the compensation of our non-executive directors, CEO and other executives, including the other Named Executive Officers. From time to time during the year, the Compensation Committee will review the compensation of our non-executive directors, CEO and other executives, determine whether to make any adjustments to their respective compensation. With regard to our executive officers, the Compensation Committee reviews base salaries, determine whether an annual incentive award was earned for the last completed fiscal year based on its assessment of the Company and individual performance for that period and, if so, the amount of any such bonuses, and determine whether to make equity awards based on Company and individual performance.

As described below, the Compensation Committee gives considerable weight to our CEO's performance evaluation of the other executives because of his direct knowledge of each executive's performance and contributions. The Compensation Committee conducts an annual review of our executives' compensation and considers adjustments in executive compensation levels to ensure alignment with our compensation strategy and competitive market practices. During this process, the Compensation Committee is also mindful of the results of the shareholder's Advisory Vote on Executive Compensation during the most recent vote and although not binding, is considered in the compensation setting process.

Role of Senior Management

The Compensation Committee typically seeks the input of our CEO when discussing the performance of and compensation for our other executives, including the other Named Executive Officers. In this regard, at the request of the Compensation Committee our CEO reviews the performance of the other executives, including the other Named Executive Officers, annually and presents to the Compensation Committee his conclusions and recommendations as to their compensation, including base salary adjustments, annual incentive awards, and long-term equity incentive awards. The Compensation Committee then uses these recommendations as one factor in its deliberations to determine the compensation of our executives.

Role of Compensation Consultant

The Compensation Committee is authorized to retain the services of one or more executive compensation advisors, as it sees fit, in connection with the oversight of our non-executive director and executive compensation program and related policies and practices. For compensation related to the year end 2018, the Compensation Committee consulted with Radford, an Aon Hewitt Company and national compensation consulting firm with regard to our executive compensation program. Radford was engaged to provide the Compensation Committee with information, recommendations, and other advice relating to these compensation programs on an ongoing basis. Radford was directly engaged and serves at the discretion of the Compensation Committee and provides no other services to the Company.

Competitive Positioning

In making compensation decisions, the Compensation Committee reviews independent survey data, such as the Radford Global Life Sciences compensation survey, as well as publicly-available data from companies with which we compete for executive talent. The companies chosen for comparison may differ from one executive to the next depending on the scope and nature of the business for which the particular executive is responsible.

Although the compensation data from comparable companies is useful comparative information, the Compensation Committee does not require that the compensation components of the non-executive directors or individual executives bear any particular relationship to the compensation of non-executive director or executives of similar positions of those comparable companies. In development-focused companies within the biopharmaceutical industry, many traditional measures of corporate performance, such as earnings-per-share or sales growth, may not readily apply in reviewing the performance of executives. Because of the Company's current stage of development, the Compensation Committee evaluates other indications of performance, including progress towards the Company's research and development programs and corporate development activities, as well as the Company's success in securing capital sufficient to enable the Company to continue research and development activities, in its decision-making process.

Say-on-Pay

At our 2017 Annual Meeting of Stockholders held on June 22, 2017, we submitted two proposals to our stockholders regarding our executive compensation practices.

The first was an advisory vote on the 2016 compensation awarded to our named executive officers (commonly known as a "say-on-pay" vote). At our 2017 annual meeting, excluding broker non-votes, approximately 88,471 shares cast votes with regard to the say-on-pay proposal. Of those, 77,834 or approximately 88%, of the shares approved the compensation of named executive officers. We believe that the outcome of our say-on-pay vote signals our stockholders' support of our compensation approach, specifically our efforts to retain and motivate our named executive officers. In light of this stockholder support, the Compensation Committee determined not to change its approach to compensation. However, even though stockholders demonstrated overwhelming support for our compensation approach in 2017, the Compensation Committee annually reevaluates our compensation practices to determine how they might be improved. The Compensation Committee will continue to consider the outcome of say-on-pay votes when making future compensation decisions for our named executive officers.

The second proposal was a vote on the frequency of future stockholder advisory votes regarding compensation awarded to named executive officers (commonly known as a "say-when-on-pay" vote). The frequency of every year received the highest number of votes cast. Notwithstanding these results, our Board of Directors determined that we would hold our next say-on-pay votes at the 2020 Annual Meeting.

Summary Compensation Table

The following table sets forth information regarding the compensation paid to, or earned by, our named executive officers for the years ended December 31, 2018 and 2017.

Name and Principal Position (a)	Year (b)	Salary ($) (c)	Bonus ($) (d)	Stock Awards ($) (e)	Option Awards ($) (f) [2]	Nonequity Incentive Plan Compensation ($) (g)	Non-qualified Deferred Compensation Earnings ($) (h)	All Other Compensation ($) (i) [1]	Total ($) (j)
Richard J. Daly	2018	$ 239,167	146,370	–	–	–	–	–	$ 385,537
Former Chief Executive, President	2017	$ 410,000	–	–	85,446 [3]	–	–	–	$ 495,446
James Scully	2018	$ 208,725	–		191,310 [4]	–	–	–	$ 400,035
Chief Executive, President	2017	–	–	–	–	–	–	–	$ –
Jonathan Lloyd Jones [5]	2018	–	–	–	–	–	–	–	$ –
Former Chief Financial Officer	2017	$ 315,000	–	–	–	–	–	–	$ 315,000

(1) Includes automobile allowance, relocation allowance, perquisites and other personal benefits.

(2) For additional information regarding the valuation of Option Awards, refer to Note 4 of our financial statements in the section captioned "Stock Options" contained in our Annual Report filed March 22, 2019 with the SEC on form 10-K.

(3) Represents 5,000 options awarded as a Short-Term incentive on November 7, 2017 valued at $85,446. The Long-Term incentive options have a strike price of $22.40 and vest quarterly over 1-year. The options have expired pursuant to Mr. Daly's resignation effective July 31, 2018.

(4) Represents 12,500 options issued pursuant to Mr. Scully's consulting agreement to serve as interim CEO on August 4, 2018 valued at $191,310. The options have a strike price of $23.00. The options vest fully on grant date.

(5) Mr. Lloyd Jones left the Company on April 30, 2017.

Employment Agreements and Arrangements and Change-In-Control Arrangements

Employment Agreement with Kenneth Carter, PhD

On December 18, 2018, Dr. Kenneth Carter was appointed the executive chairman of the Company to be effective January 1, 2019 where he will serve as our principal executive officer and principal financial officer. In connection with Dr. Carter's employment, we entered into an at-will employment agreement. Pursuant to the terms of his employment agreement, he received a signing bonus of $20,000 and receives a base salary of $395,000 per year and is eligible to receive an annual cash bonus based on achievement of certain performance milestones with a target of 50% of his base salary.

Dr. Carter was also issued an inducement option to purchase 40,000 shares of common stock on December 12, 2018. The inducement option has an exercise price of $8.50 per share, a term of ten (10) years, and vests as follows: (i) 10,000 options on the effective date, (ii) 5,000 options on the six (6) month anniversary of the effective date, (iii) 5,000 options vest on the two (2) year anniversary of the effective date, and (iv) the remaining 20,000 vest upon the achievement of performance-based milestones to be completed in a time domain within six (6) to twelve (12) months following the effective date. The Executive Chairman commenced employment on January 1, 2019 and the Company considers this to be the accounting grant date of the award.

For a twelve (12) month period following the effective date, Dr. Carter's employment agreement further calls for the adjustment in the number of shares underlying the inducement option in the event of a capital raising transaction such that Dr. Carter's ownership percentage would remain the same prior and subsequent to such transaction.

Dr. Carter's employment agreement also provides for severance in the event the Company terminates his employment without "cause" or he resigns with "good reason," or as a result of his death or disability as each term is defined in the employment agreement or upon termination due to death or disability, Dr. carter will be entitled to (i) payment of his accrued base salary, unreimbursed expenses, unpaid but earned bonuses, and accrued and unused vacation time; (ii) the accelerated vesting of 100% of Dr. Carter's then outstanding unvested equity awards, (iii) the continued payment of his base salary for (a) eighteen (18) months following the termination if such termination occurs within six (6) months of the effective date or if termination occurs within the eighteen (18) month period following a "sale event" or "change of control" and (b) twelve (12) months following the termination date if termination occurs after the initial six (6) month period following the effective date and (iv) payment of a pro rata portion of his target annual bonus for the year in which termination occurs. Dr. Carter will not be entitled to any continued payment of salary after the twenty-four (24) month anniversary of the effective date

In the event of a termination for any reason other than "Cause," we will be required to make such payments, approximately as follows:

Officer	Severance	Accelerated Vesting of Awards	Total
Kenneth Carter, PhD [(1)]	$ 0	$ 0	$ 0

(1) Assumes termination at December 31, 2018. The effective date of Dr. Carter's agreement is January 1, 2019, accordingly no severance payments would be due.

Employment Agreement with James Scully

Effective August 1, 2018, James Scully was appointed as the interim Chief Executive Officer and Principal Accounting Officer of the Company. On December 31, 2018, Mr. Scully was replaced by Kenneth Carter, PhD., our current executive Chairman.

During Mr. Scully's tenure, he was entitled to $25,000 per calendar month and obligated to work three (3) full days per week. In the event that he worked additional days, he received $2,000 per full day of service. Mr. Scully's employment agreement was for a period of six (6) months beginning August 1, 2018 and ending on January 31, 2019, unless terminated earlier upon sixty (60) days' notice. Mr. Scully was also issued an option to purchase 12,500 shares of Common Stock with a grant date of August 4, 2018, a term of five (5) years, and an exercise price of $23.00 per share which vested fully on the grant date.

Employment Agreement with Richard Daly

On February 15, 2016, Richard Daly was appointed Chief Executive Officer, President, and as a member of the Company's board of directors. Mr. Daly resigned effective July 31, 2018 as CEO, president and as a member of the Board. Pursuant to the terms of the employment agreement, Mr. Daly received a base salary of $440,000 per year and was eligible to receive an annual cash bonus based on achievement of certain performance goals with a target of 50% of his base salary. Effective June 1, 2016, Mr. Daly agreed to a voluntary salary reduction of $30,000 per year, thereby adjusting his annual salary to $410,000 per year.

Mr. Daly's employment agreement provided for severance in the event Company terminates Mr. Daly's employment without Cause or Mr. Daly resigns with Good Reason, as each term is defined in the employment agreement, Mr. Daly was eligible for (a) payment of his accrued but unpaid base salary, any unpaid or unreimbursed expenses and any accrued but unused vacation through the date of termination; and (b) continued payment of his base salary for (i) 18 months following the termination date if termination occurs within 12 months of the Effective Date, (ii) 12 months following the termination date if termination occurs within between 12 and 24 months of the Effective Date, or (iii) 9 months following the termination date if termination occurs 24 months after the Effective Date (collectively, the "Severance Benefits"). Further, if within 18 months following a Sale Event (as defined in the Company's inducement stock option plan) Mr. Daly's employment is (a) terminated by the Company for any reason (other than as a result of his death or disability or a with Cause termination) or (b) terminated by Mr. Daly with Good Reason, then Mr. Daly will be eligible to receive, in addition to the Severance Benefits: (i) acceleration of the vesting of 100% of Mr. Daly's then outstanding unvested equity awards and (ii) payment of a pro rata portion of Mr. Daly's target annual bonus for the year in which the termination of employment occurs.

Mr. Daly also entered into a confidential information and invention assignment agreement governing the ownership of any inventions and confidential information. Mr. Daly also entered into the Company's standard indemnification agreement which is entered into by the Company's officers and directors.

Mr. Daly's agreement contained non-solicitation, and confidentiality covenants. The agreement may be terminated by either party with our without cause and without prior notice subject to the termination provisions as discussed.

Employment Agreement with Jonathan Lloyd Jones

We had a written employment agreement with Jonathan Lloyd Jones our Chief Financial Officer. Pursuant to the agreement and until he left the Company on April 30, 2017 to pursue other opportunities, Mr. Lloyd Jones was entitled to an annual salary of $315,000 paid monthly. Additionally, Mr. Lloyd Jones' employment agreement provided for certain performance bonuses as determined from time to time by our Compensation Committee. For 2016, Mr. Lloyd Jones' target levels for annual incentive bonus and long term equity compensation were: (i) 50%, and (ii) 50%, of Mr. Lloyd Jones' 2016 base salary, respectively. For 2017, Mr. Lloyd Jones' target bonus levels for annual incentive and long term equity compensation bonuses had not been determined prior to his leaving the Company. Mr. Lloyd Jones' employment agreement also provided for the reimbursement of reasonable business expenses. Mr. Lloyd Jones' employment agreement was at-will.

Mr. Lloyd Jones' employment agreement also provided that in the event Mr. Lloyd Jones is terminated for any reason other than "Cause", then he shall be entitled to (i) severance in an amount equal to one year of his annual salary and (ii) the immediate vesting of all previously unvested stock options granted to Mr. Lloyd Jones upon execution of his employment agreement, or 192 aggregate options (collectively, "Termination Provisions"). Mr. Lloyd Jones left the Company on April 30, 2017 and pursuant to a separation agreement and release, he received in lieu of any compensation owed under the terms of his employment, (i) payment of an aggregate of $315,000 payable in twelve (12) equal monthly installments and (ii) the vesting of all outstanding options previously granted to him.

Equity Compensation Plans

We currently have the following equity compensation plans outstanding as of the date hereof: (i) 2007 Equity Compensation Plan, (ii) 2010 Equity Compensation Plan, (iii) Inducement Award Stock Option Plan and (iv) 2019 Equity Incentive Plan.

For information related to our equity compensation plans for which our officers and directors are issued securities from, please see "Equity Compensation Plan Information" contained in the Section entitled "Market for Registrant's common equity, related stockholder matters" contained in this registration statement.

Outstanding Equity Awards Value at Fiscal Year-End

The following table includes information with respect to the value of all outstanding equity awards previously awarded to our named executive officers as of December 31, 2018.

Name (a)	Number of securities underlying unexercised options - exercisable (#) (b)	Number of securities underlying unexercised options - unexercisable (#) (c)	Equity incentive plan awards: Number of securities underlying unexercised unearned options (#) (d)	Option exercise price ($) (e)	Option expiration date (f)	Number of shares or units of stock that have not vested (#) (g)	Market value of shares of units of stock that have not vested ($) (h)	Equity incentive plan award: Number of unearned shares, units or other rights that have not vested (#) (i)	Equity incentive plan awards: Market or payout value of unearned shares, units or other rights that have not vested (#) (j)
Kenneth Carter, PhD [1]	–	40,000		$ 8.50	12/12/28	–	–	–	–
James Scully [2]	12,500			$ 23.00	8/4/23	–	–	–	–

(1) On December 12, 2018, in connection with his employment agreement, we granted Dr. Kenneth Carter, our executive chairman, an inducement option to purchase 40,000 shares under our inducement stock option plan. The Options vest as follows: (i) 10,000 on the effective date (January 1, 2019), (ii) 5,000 on the six (6) month anniversary of the effective date, (iii) 5,000 on the two (2) year anniversary of the effective date, and (iv) 20,000 on the achievement of performance-based milestones to be completed within a time domain of six (6) to twelve (12) months following the effective date.

(2) On August 4, 2018, we granted our interim CEO an option to purchase 12,500 common shares. The options were granted under our 2010 Stock Plan. The award vests fully on grant date but is subject to forfeiture in the event that Mr. Scully voluntarily ceases to be a service provider or is terminated for cause prior to the end of the consulting term (January 31, 2019).

DIRECTOR COMPENSATION

Board Compensation Arrangements

Our non-executive director compensation program is overseen and approved by our Compensation Committee and is designed to enable us to continue to attract and retain highly qualified directors by ensuring that director compensation is in line with peer companies competing for director talent, and is designed to address the time, effort, expertise, and accountability required of active board membership. In general, we believe that annual compensation for non-employee directors should be cash and equity based and designed to compensate members for their service on the Board and its committees, align the interests of directors and stockholders and, by vesting over time, to create an incentive for continued service on the Board. Our Compensation Committee annually reviews and approves compensation programs related to our non-employee members of the Board of Directors.

The following are the terms of our legacy and current amended Director Compensation Plans pursuant to which non-employee directors are compensated:

Current Plan (currently in effect)

Effective July 1, 2017, the compensation committee of the Company approved an amendment to the non-employee Board compensation policy, whereby each non-employee director will receive a $100,000 annual board fee subject to annual review and adjustment. The annual board fee is payable as follows: (i) up to $50,000 in cash and (ii) the balance in equity grants consisting of common stock purchase options, restricted stock units or restricted stock, at the election of each non-employee director. Directors electing to receive a portion of their annual fee in cash will receive four equal quarterly payments during the year. Applicable equity grants will be made as of July 1 of each year and will vest quarterly over the grant year. Fees for new directors appointed or elected during the year will be pro-rated and made on the fifth (5^{th}) day following such approval and acceptance on the Board.

Each non-employee director continuing service will be required to make an election to receive the board fee in either cash, restricted stock, restricted stock units, or common stock options or a combination thereof by June 15th of each year. All grants of restricted stock and restricted stock units will be valued using the adjusted closing bid price of the Company's common stock on the applicable grant date. All option grants will be valued using the Black-Scholes option pricing model and are subject to customary assumptions used in the preparation of the financial statements.

Board Compensation for 2018 Board Year

The following table summarizes compensation paid to non-employee directors during the board year July 1, 2018 through June 30, 2019.

Name (a)	Fees Earned or Paid in Cash ($) (b)	Stock Awards ($) (c)	Option Awards ($) (d)	Nonequity Incentive Plan Compensation ($) (e)	Non-qualified Deferred Compensation Earnings ($) (f)	All Other Compensation ($) (g)	Total ($) (h)
William Oldaker							
Independent Director [1]	$50,000	-	$50,000	-	-	-	$ 100,000
Scott Ogilvie							
Independent Director [2]	$50,000	-	$50,000	-	-	-	$ 100,000
Stanley Westreich							
Independent Director [3]	$50,000	-	$50,000	-	-	-	$ 100,000
Cristina Csimma, Pharm.D, MHP							
Independent Director [4]	$50,000	-	$50,000	-	-	-	$ 100,000
Xi Chen							
Independent Director [5]	$25,000	$25,000	-	-	-	-	$ 50,000
Sandford Smith							
Independent Director [6]	$50,000	$50,000	-	-	-	-	$ 100,000

(1) On July 2, 2018, the Director elected to receive his annual compensation for the period from July 1, 2018 through June 30, 2019 in the form of $50,000 in cash and $50,000 in common stock purchase options represented by 2,983 options with an exercise price of $22.20 and a term of 10 years. The shares vest quarterly over the grant year.

(2) On July 2, 2018, the Director elected to receive his annual compensation for the period from July 1, 2018 through June 30, 2019 in the form of $50,000 in cash and $50,000 in common stock purchase options represented by 2,983 options with an exercise price of $22.20 and a term of 10 years. The shares vest quarterly over the grant year. Mr. Westreich elected not to stand for reelection and his term expired on June 12, 2019.

(3) On July 2, 2018, the Director elected to receive his annual compensation for the period from July 1, 2018 through June 30, 2019 in the form of $50,000 in cash and $50,000 in common stock purchase options represented by 2,983 options with an exercise price of $22.20 and a term of 10 years. The shares vest quarterly over the grant year.

(4) On July 2, 2018, the Director elected to receive his annual compensation for the period from July 1, 2018 through June 30, 2019 in the form of $50,000 in cash and $50,000 in common stock purchase options represented by 2,983 options with an exercise price of $22.20 and a term of 10 years. The shares vest quarterly over the grant year.

(5) On July 2, 2018, the Director elected to receive his annual compensation for the period from July 1, 2018 through June 30, 2109 in the form of $50,000 in cash and $50,000 in restricted stock units represented by 2,252 shares. The Director ceased serving on the Board of Directors as of February 5, 2019. Accordingly, such compensation represents the portion of the Board year served.

(6) On July 2, 2018, the Director elected to receive his annual compensation for the period from July 1, 2018 through June 30, 2019 in the form of $50,000 in cash and $50,000 in restricted stock awards representing 2,252 shares. The shares vest quarterly over the grant year.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Related Party Transactions Procedures

We review all known relationships and transactions in which Neuralstem and our directors, executive officers, and significant stockholders or their immediate family members are participants to determine whether such persons have a direct or indirect interest. Our management, in consultation with our outside legal consultants, determines based on specific fact and circumstances whether Neuralstem or a related party has a direct or indirect interest in these transactions. In addition, our directors and executive officers are required to notify us of any potential related party transactions and provide us with the information regarding such transactions.

If it is determined that a transaction is a related party transaction, the Audit Committee must review the transaction and either approve or disapprove it. In determining whether to approve or ratify a transaction with a related party, the Audit Committee will take into account all of the relevant facts and circumstances available to it, including, among any other factors it deems appropriate:

- the benefits to us of the transaction;
- the nature of the related party's interest in the transaction;
- whether the transaction would impair the judgment of a director or executive officer to act in the best interests of Neuralstem and our stockholders;
- the potential impact of the transaction on a director's independence; and
- whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances.

Any member of the Audit Committee who is a related party with respect to a transaction under review may not participate in the deliberations or vote on the approval of the transaction.

Related Party Transactions

Summarized below are certain transactions and business relationships between Neuralstem and persons who are or were an executive officer, director or holder of more than five percent of any class of our securities since January 1, 2017.

Information regarding disclosure of an employment relationship or transaction involving an executive officer and any related compensation solely resulting from that employment relationship or transaction is included in the Section of this prospectus entitled "*Director Compensation*" and "*Executive Compensation.*"

Information regarding disclosure of compensation to a director is included in the Section of this prospectus entitled "*Director Compensation.*"

Information regarding the identification of each independent director is included in the Section of this proxy statement entitled "*Our Management - Directors, Executive Officers and Significant Employees*."

All of our officers and directors enter into our standard indemnification agreement.

- On April 10, 2017, the Board and Compensation Committee amended the Company's non-employee director compensation plan. Under the amended plan, each director receives $100,000 payable in either (i) cash, (ii) equity grants consisting of common stock purchase options, restricted stock units or restricted stock, or (iii) a combination thereof at the election of each non-employee director. Dr. Johe is also entitled to receive an annual stock option award to purchase at least 5,000 shares of common stock which shall each vest over a five (5) year period.

  In addition to amending the plan, the Board and Compensation Committee approved the payment of the directors' previously deferred compensation for the period from July 1, 2016 through June 30, 2017.

- During the Board fiscal year of July 1, 2017 through June 30, 2018, we paid the following compensation to our non-employee board members:

  1. An aggregate of $165,890 in cash;
  2. An aggregate of 3,991 restricted stock awards valued at $265,890;
  3. An aggregate of 679 common stock purchase options valued at $50,000; and
  4. An aggregate of 466 restricted stock units valued at $50,000.

- Between September 23, 2016 and May 15, 2017, Richard Daly, our former CEO and Chairman purchased an aggregate of 1,166 shares of common stock at prices ranging from $72.80 to $83.20 based on the closing price of the common stock on such respective date of purchase. The company received aggregate proceeds of approximately $90,000 from the sale of such securities.

- Between September 23, 2016 and March 24, 2017, Jonathan Lloyd Jones, our former CFO purchased an aggregate of 393 shares of common stock at prices ranging from $83.20 to $110.00 based on the closing price of the common stock on such respective date of purchase. The company received aggregate proceeds of $40,000 from the sale of such securities.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of July 18, 2019, information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to be the beneficial owner of 5% or more of any class of our voting securities;
- each of our current directors and nominees;
- each of our current named executive officers; and
- all current directors and named executive officers as a group.

Beneficial ownership is determined according to the rules of the SEC. Beneficial ownership means that a person has or shares voting or investment power of a security and includes any securities that person or group has the right to acquire within 60 days after the measurement date. This table is based on information supplied by officers, directors and principal stockholders. Except as otherwise indicated, we believe that each of the beneficial owners of the common stock listed below, based on the information such beneficial owner has given to us, has sole investment and voting power with respect to such beneficial owner's shares, except where community property laws may apply.

	Common Stock			
Name and Address of Beneficial Owner[1]	**Shares**	**Shares Underlying Convertible Securities**	**Total**	**Percent of Class [2]**
Directors and named executive officers				
Kenneth Carter	-	14,000	14,000	1.29%
Richard Daly [3]	1,166	-	1,166	*
James Scully [4]	-	12,500	12,500	1.15%
Stanley Westreich	6,370	5,603	11,973	1.11%
William Oldaker	990	4,316	5,306	*
Scott Ogilvie	331	4,595	4,926	*
Sandford Smith	3,226	286	3,512	*
Cristina Csimma, Pharm.D, MHP	1,526	2,983	4,509	*
Binxian Wei [5]	-	5,925	5,925	*
Xi Chen [5]	1,126	-	1,126	*
David Mazzo	-	455	455	*
Jonathan Lloyd Jones [6]	393	-	393	*
All directors and named executive officers as a group (12 individuals)			65,791	5.84%
5% owners as reported on form SC 13G				
Tianjin Pharmaceuticals Group International Holdings Co., LTD	265,111	38,874	303,985	27.29%
Sabby Volatility Warrant Master Fund [7]	77,907	-	77,907	7.25%
All directors, named executive officers, and 5% owners as a group (14 entities)			447,683	38.90%

(1) Except as otherwise indicated, the persons named in this table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable and to the information contained in the footnotes to this table. Unless otherwise indicated, the address of the beneficial owner is c/o Neuralstem, Inc. 20271 Goldenrod Lane, Germantown, MD 20876.

(2) Pursuant to Rules 13d-3 and 13d-5 of the Exchange Act, beneficial ownership includes any shares as to which a shareholder has sole or shared voting power or investment power, and also any shares which the shareholder has the right to acquire within 60 days, including upon exercise of common shares purchase options or warrants. There are 1,075,208 shares of common stock issued and outstanding as of July 18, 2019.

(3) Mr. Daly resigned as Chief Executive Officer and Chairman of the Board effective July 31, 2018.

(4) Mr. Scully's term as Chief Executive Officer ended on December 31, 2018.

(5) These individuals served as directors appointed by the Series A 4.5% Convertible Preferred Stock owners. Dr. Chen served through February 5, 2019 at which time he was replaced by Mr. Wei.

(6) Mr. Lloyd Jones ceased to be our Chief Financial Officer as of April 30, 2017.

(7) As reported by holder as of January 7, 2019. The address of Sabby Volatility Warrant Master Fund is c/o Ogier Fiduciary Services (Cayman) Limited 89 Nexus Way, Camana Bay, Grand Cayman KY1-9007 Cayman Islands.

LEGAL MATTERS

The validity of our securities offered and to be issued by this prospectus will be passed upon for us by Silvestre Law Group, P.C. of Westlake Village, CA.Ellenoff Grossman & Schole LLP, New York, New York, has acted as counsel for the underwriters in connection with certain legal matters related to this offering.

EXPERTS

The audited consolidated financial statements included in this prospectus and in the registration statement of which it forms a part, have been so included in reliance on the report of Dixon Hughes Goodman LLP, appearing elsewhere in this prospectus and the registration statement of which it forms a part, given on the authority of said firm as an expert in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We will file annual, quarterly and other reports, proxy statements and other information with the Securities and Exchange Commission, or SEC, under the Exchange Act. You may read and copy any document we file at the public reference facilities of the SEC at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference rooms. Our SEC filings are also available to the public at the SEC's web site, free of charge, at *http://www.sec.gov* and at our website at *http://www.neuralstem.com*. The reference to our web address does not constitute incorporation by reference of the information contained at this site into this prospectus. We will furnish our stockholders with annual reports containing audited financial statements.

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC under the Securities Act. This prospectus does not contain all of the information in the registration statement and the exhibits and schedule that were filed with the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and the exhibits and schedule(s) that were filed with the registration statement. Statements contained in this prospectus about the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and we refer you to the full text of the contract or other document filed as an exhibit to the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus. For further information you may:

- read a copy of the registration statement, including the exhibits and schedules, without charge at the SEC's public reference rooms or the SEC's website; or
- obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

You may request and obtain a copy of any of our filings, including the exhibits thereto, at no cost, by writing or telephoning us at the following address or phone number:

Neuralstem, Inc.
Attn: Investor Relations
20271 Goldenrod Lane
Germantown, Maryland 20876
Phone: (301)-366-4960

INDEX TO FINANCIAL STATEMENTS

PART I
FINANCIAL INFORMATION

Neuralstem, Inc.

Unaudited Condensed Consolidated Balance Sheets

	March 31, 2019	December 31, 2018
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 4,005,089	$ 5,787,110
Trade and other receivables	237,782	294,057
Current portion of related party receivable, net of discount	-	63,938
Prepaid expenses	295,406	363,288
Total current assets	4,538,277	6,508,393
Property and equipment, net	75,668	90,311
Patents, net	738,404	763,543
Related party receivable, net of discount and current portion	-	298,238
Other assets	53,354	23,965
Total assets	$ 5,405,703	$ 7,684,450
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 1,083,143	$ 832,564
Other current liabilities	126,930	218,602
Total current liabilities	1,210,073	1,051,166
Warrant liabilities, at fair value	923,849	583,734
Total liabilities	2,133,922	1,634,900
Commitments and contingencies (Note 5)		
STOCKHOLDERS' EQUITY		
Preferred stock, 7,000,000 shares authorized, $0.01 par value; 1,000,000 shares issued and outstanding at both March 31, 2019 and December 31, 2018	10,000	10,000
Common stock, $0.01 par value; 300,000,000 shares authorized, 910,253 shares issued and outstanding at both March 31, 2019 and December 31, 2018.	9,103	9,103
Additional paid-in capital	219,992,719	219,654,753
Accumulated other comprehensive income	(2,156)	(413)
Accumulated deficit	(216,737,885)	(213,623,893)
Total stockholders' equity	3,271,781	6,049,550
Total liabilities and stockholders' equity	$ 5,405,703	$ 7,684,450

See accompanying notes to unaudited condensed consolidated financial statements.

Neuralstem, Inc.

Unaudited Condensed Consolidated Statements of Operations and Comprehensive Loss

	Three Months Ended March 31,	
	2019	**2018**
Revenues	$ 2,500	$ 2,500
Operating expenses:		
Research and development expenses	1,514,463	1,169,441
General and administrative expenses	944,602	1,182,054
Total operating expenses	2,459,065	2,351,495
Operating loss	(2,456,565)	(2,348,995)
Other income (expense):		
Interest income	29,000	17,749
Interest expense	(2,017)	(1,920)
Change in fair value of derivative instruments	(340,115)	190,219
Other income (expense)	(344,295)	(4,021)
Total other income (expense)	(657,427)	202,027
Net loss	$ (3,113,992)	$ (2,146,968)
Net loss per share - basic and diluted	$ (3.42)	$ (2.84)
Weighted average common shares outstanding - basic	910,821	755,847
Comprehensive loss:		
Net loss	$ (3,113,992)	$ (2,146,968)
Foreign currency translation adjustment	(1,743)	115
Comprehensive loss	$ (3,115,735)	$ (2,146,853)

See accompanying notes to unaudited condensed consolidated financial statements.

Neuralstem, Inc.

Unaudited Consolidated Statements of Changes In Stockholders' Equity

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at January 1, 2018	**1,000,000**	**$ 10,000**	**758,001**	**$ 7,580**	**$ 217,194,194**	**$ 2,631**	**$ (208,699,276)**	**$ 8,515,129**
Share based payments	-	-	-	-	238,835	-	-	238,835
Foreign currency translation adjustments	-	-	-	-	-	115	-	115
Net loss	-	-	-	-	-	-	(2,146,968)	(2,146,968)
Balance at March 31, 2018	**1,000,000**	**$ 10,000**	**758,001**	**$ 7,580**	**$ 217,433,029**	**$ 2,746**	**$ (210,846,244)**	**$ 6,607,111**

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at January 1, 2019	**1,000,000**	**$ 10,000**	**910,253**	**$ 9,103**	**$ 219,654,753**	**$ (413)**	**$ (213,623,893)**	**$ 6,049,550**
Share based payments	-	-	-	-	337,966	-	-	337,966
Foreign currency translation adjustments	-	-	-	-	-	(1,743)	-	(1,743)
Net loss	-	-	-	-	-	-	(3,113,992)	(3,113,992)
Balance at March 31, 2019	**1,000,000**	**$ 10,000**	**910,253**	**$ 9,103**	**$ 219,992,719**	**$ (2,156)**	**$ (216,737,885)**	**$ 3,271,781**

See accompanying notes to unaudited condensed consolidated financial statements.

Neuralstem, Inc.

Unaudited Condensed Consolidated Statements of Cash Flows

	Three Months Ended March 31,	
	2019	**2018**
Cash flows from operating activities:		
Net loss	$ (3,113,992)	$ (2,146,968)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	39,821	67,374
Share-based compensation expense	337,966	238,835
Change in fair value of liability classified warrants	340,115	(190,219)
Changes in operating assets and liabilities:		
Trade and other receivables	56,275	175,430
Related party receivable	362,176	89,937
Prepaid expenses	75,938	56,241
Other assets	19,125	(4,000)
Accounts payable and accrued expenses	244,319	293,119
Accrued bonuses	-	(418,625)
Other current liabilities	(27,648)	(7,369)
Other long term liabilities	-	(704)
Net cash used in operating activities	(1,665,905)	(1,846,949)
Cash flows from investing activities:		
Maturity of short-term investments	-	5,000,000
Net cash provided by investing activities	-	5,000,000
Cash flows from financing activities:		
Payments of short-term notes payable	(117,019)	(104,244)
Net cash used in financing activities	(117,019)	(104,244)
Effects of exchange rates on cash	903	501
Net (decrease) increase in cash and cash equivalents	(1,782,021)	3,049,308
Cash and cash equivalents, beginning of period	5,787,110	6,674,940
Cash and cash equivalents, end of period	$ 4,005,089	$ 9,724,248
Supplemental disclosure of cash flows information:		
Cash paid for interest	$ 2,017	$ 1,920

See accompanying notes to unaudited condensed consolidated financial statements.

Note 1. Organization, Business and Financial Condition

Nature of business

Neuralstem, Inc. and its subsidiary are referred to as "Neuralstem," the "Company," "us," or "we" throughout this report. The operations of our wholly-owned and controlled subsidiary located in the People's Republic of China are consolidated in our unaudited condensed consolidated financial statements and all intercompany activity has been eliminated. The Company operates in one business segment.

Neuralstem is a clinical stage biopharmaceutical company that is utilizing its proprietary human neural stem cell technology to create a comprehensive platform of therapies for the treatment of central nervous system diseases. The Company has utilized this technology as a tool for small-molecule drug discovery and to create cell therapy biotherapeutics to treat central nervous system diseases. The Company was founded in 1997 and currently has laboratory and office space in Germantown, Maryland and laboratory facilities in the People's Republic of China. Our operations to date have primarily focused on developing business strategies, raising capital, research and development activities, and conducting pre-clinical testing and human clinical trials of our product candidates.

Liquidity and Going Concern

The Company has incurred losses since its inception and has not demonstrated an ability to generate significant revenues from the sales of its therapies or services and have not yet achieved profitable operations. There can be no assurance that profitable operations will ever be achieved, or if achieved, could be sustained on a continuing basis. In addition, development activities, clinical and pre-clinical testing, and commercialization of our products will require significant additional financing. These factors create substantial doubt about the Company's ability to continue as a going concern within one year after the date that the consolidated financial statements are issued. The consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern. Accordingly, the consolidated financial statements have been prepared on a basis that assumes the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the ordinary course of business.

In making this assessment the Company performed a comprehensive analysis of its current circumstances including: its financial position at March 31, 2019, its cash flow and cash usage forecasts for the period covering one-year from the issuance date of this Quarterly Report and its current capital structure including outstanding warrants and other equity-based instruments and its obligations and debts.

We expect that our existing cash and cash equivalents will be sufficient to enable us to fund our anticipated level of operations based on our current operating plans into the third quarter of 2019. Accordingly, we will require additional capital to further develop our product candidates, conduct our pre-clinical and clinical development programs and to fund our operations. We anticipate raising additional capital through the private and public sales of our equity or debt securities, collaborative arrangements, licensing agreements or a combination thereof. Although management believes that such capital sources will be available, there can be no assurance that any such collaborative or licensing arrangements will be entered into or that financing will be available to us when needed in order to allow us to continue our operations, or if available, on terms acceptable to us. If we do not raise sufficient capital in a timely manner, among other things, we may be forced to delay, scale back or eliminate some or all of our research and product development programs, planned clinical trials, and/or our capital expenditures or to license our potential products or technologies to third parties on unfavorable terms. We currently do not have any commitments for future funding from any source.

We have spent and will continue to spend substantial funds in the research, development, pre-clinical and clinical testing of our small molecule and stem cell product candidates with the goal of ultimately obtaining approval from the United States Food and Drug Administration (the "FDA") and its international equivalents regulatory agencies, to market and sell our products. We have also begun spending funds on the evaluation and new assets and technologies with the goal of acquisition and development. No assurance can be given that (i) the FDA or any other regulatory agency will grant approval for us to market and sell our product candidates, (ii) if regulatory approval is granted, that we will ever be able to sell our proposed products or be profitable, or (iii) that we will be able to identify and acquire and/or in-license promising new assets or technologies.

Note 2. Significant Accounting Policies and Basis of Presentation

Basis of Presentation

In management's opinion, the accompanying interim unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments, which are necessary to present fairly our financial position, results of operations and cash flows. The unaudited condensed consolidated balance sheet at December 31, 2018, has been derived from audited financial statements as of that date. The interim results of operations are not necessarily indicative of the results that may occur for the full fiscal year. Certain information and footnote disclosure normally included in the financial statements prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP) have been condensed or omitted pursuant to instructions, rules and regulations prescribed by the U.S. Securities and Exchange Commission ("SEC"). We believe that the disclosures provided herein are adequate to make the information presented not misleading when these unaudited condensed consolidated financial statements are read in conjunction with the Financial Statements and Notes included in our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC, and as may be amended.

Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The unaudited condensed consolidated financial statements include significant estimates for the expected economic life and value of our licensed technology and related patents, our net operating loss and related valuation allowance for tax purposes, the fair value of our liability classified warrants and our share-based compensation related to employees and directors, consultants and advisors, among other things. Because of the use of estimates inherent in the financial reporting process, actual results could differ significantly from those estimates.

Fair Value Measurements

The carrying amounts of our short-term financial instruments, which primarily include cash and cash equivalents, short-term investments, accounts payable and accrued expenses, approximate their fair values due to their short maturities. The fair value of our long-term indebtedness was estimated based on the quoted prices for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities and approximates the carrying value. The fair values of our liability classified warrants were estimated using Level 3 unobservable inputs. See Note 3 for further details.

Foreign Currency Translation

The functional currency of our wholly owned foreign subsidiary is its local currency. Assets and liabilities of our foreign subsidiary are translated into United States dollars based on exchange rates at the end of the reporting period; income and expense items are translated at the weighted average exchange rates prevailing during the reporting period. Translation adjustments for subsidiary are accumulated in other comprehensive income or loss, a component of stockholders' equity. Transaction gains or losses are included in the determination of net loss.

Cash, Cash Equivalents and Credit Risk

Cash equivalents consist of investments in low risk, highly liquid money market accounts and certificates of deposit with original maturities of 90 days or less. Cash deposited with banks and other financial institutions may exceed the amount of insurance provided on such deposits. If the amount of a deposit at any time exceeds the federally insured amount at a bank, the uninsured portion of the deposit could be lost, in whole or in part, if the bank were to fail.

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents. Our investment policy, approved by our Board of Directors, limits the amount we may invest in any one type of investment issuer, thereby reducing credit risk concentrations. We attempt to limit our credit and liquidity risks through our investment policy and through regular reviews of our portfolio against our policy. To date, we have not experienced any loss or lack of access to cash in our operating accounts or to our cash equivalents and short-term investments.

Revenue

The Company analyzes contracts to determine the appropriate revenue recognition using the following steps: (i) identification of contracts with customers; (ii) identification of distinct performance obligations in the contract; (iii) determination of contract transaction price; (iv) allocation of contract transaction price to the performance obligations; and (v) determination of revenue recognition based on timing of satisfaction of the performance obligation. The Company recognizes revenues upon the satisfaction of its performance obligation (upon transfer of control of promised goods or services to customers) in an amount that reflects the consideration to which it expects to be entitled to in exchange for those goods or services. Deferred revenue results from cash receipts from or amounts billed to customers in advance of the transfer of control of the promised services to the customer and is recognized as performance obligations are satisfied. When sales commissions or other costs to obtain contracts with customers are considered incremental and recoverable, those costs are deferred and then amortized as selling and marketing expenses on a straight-line basis over an estimated period of benefit.

Research and Development

Research and development costs are expensed as they are incurred. Research and development expenses consist primarily of costs associated with the pre-clinical development and clinical trials of our product candidates. For the three months ended March 31, 2019 and 2018, we recorded approximately $95,000 and $84,000, respectively of cost reimbursements from our grants as an offset to research and development expenses. The Company evaluated the grants and concluded that, based on the specific terms, they represent a cost reimbursement activity as opposed to a revenue generating activity, and are best reflected as an offset to the underlying research and development expense.

Income (Loss) per Common Share

Basic income (loss) per common share is computed by dividing total net income (loss) available to common stockholders by the weighted average number of common shares outstanding during the period.

For periods of net income when the effects are dilutive, diluted earnings per share is computed by dividing net income available to common stockholders by the weighted average number of shares outstanding and the dilutive impact of all dilutive potential common shares. Dilutive potential common shares consist primarily of convertible preferred stock, stock options, restricted stock units and common stock purchase warrants. The dilutive impact of potential common shares resulting from common stock equivalents is determined by applying the treasury stock method. Our unvested restricted shares contain non-forfeitable rights to dividends, and therefore are considered to be participating securities; the calculation of basic and diluted income per share excludes net income attributable to the unvested restricted shares from the numerator and excludes the impact of the shares from the denominator.

For all periods of net loss, diluted loss per share is calculated similarly to basic loss per share because the impact of all dilutive potential common shares is anti-dilutive due to the net losses; accordingly, diluted loss per share is the same as basic loss per share for the three months ended March 31, 2019 and 2018. A total of approximately 0.7 and 0.5 million potential dilutive shares have been excluded in the calculation of diluted net income per share for the three months ended March 31, 2019 and 2018, respectively as their inclusion would be anti-dilutive.

Share-Based Compensation

We account for share-based compensation at fair value. Share-based compensation cost for stock options and stock purchase warrants is generally determined at the grant date using an option pricing model that uses Level 3 unobservable inputs; share-based compensation cost for restricted stock and restricted stock units is determined at the grant date based on the closing price of our common stock on that date. The value of the award is recognized as expense on a straight-line basis over the requisite service period or based on probability of vesting for performance-based awards.

Intangible and Long-Lived Assets

We assess impairment of our long-lived assets using a "primary asset" approach to determine the cash flow estimation period for a group of assets and liabilities that represents the unit of accounting for a long-lived asset to be held and used. Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. No significant impairment losses were recognized during the three-month periods ended March 31, 2019 or 2018.

Income Taxes

We account for income taxes using the asset and liability approach, which requires the recognition of future tax benefits or liabilities on the temporary differences between the financial reporting and tax bases of our assets and liabilities. A valuation allowance is established when necessary to reduce deferred tax assets to the amounts expected to be realized. We also recognize a tax benefit from uncertain tax positions only if it is “more likely than not” that the position is sustainable based on its technical merits. Our policy is to recognize interest and penalties on uncertain tax positions as a component of income tax expense.

Leases

We determine if an arrangement is or contains a lease at its inception. We have made accounting policy elections whereby we (i) do not recognize right-of-use (“ROU”) assets or lease liabilities for our short-term leases (those with original terms of 12-months or less) and (ii) combine lease and non-lease elements of our operating leases. Operating lease ROU assets are included in other noncurrent assets and operating lease liabilities are included in other current liabilities in our consolidated balance sheets. We do not have any finance leases.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Rent expense is recognized on a straight-line basis over the lease term.

We currently have one operating lease (for our San Diego facility) with an original term greater than 12-months. This lease terminates in August 2019 and provides for remaining minimum payments of approximately $49,600 as of March 31, 2019. We paid approximately $29,800 under this lease in the three months ended March 31, 2019. Because this lease does not provide an implicit interest rate, we used our estimated incremental borrowing rate of approximately 12.75% to calculate the present value of our remaining minimum lease payments upon adoption of the new lease guidance. Our ROU asset and lease liability at March 31, 2019, was approximately $33,900 and $48,100, respectively.

We also have two additional short-term leases for which we did not establish ROU assets or lease liabilities. We recognized total rent expense of approximately $47,300 and $47,100 in the quarters ended March 31, 2019 and 2018, respectively. Included in the 2019 expense is approximately $16,900 relating to our short-term leases

In addition, in April 2018, we entered into a sublease for our San Diego space. The sublease is coterminous with the head lease and provides for approximately $62,200 of remaining minimum payments. We recognized other income of approximately $24,200 from this sublease in the quarter ended March 31, 2019.

Significant New Accounting Pronouncements

Recently Adopted Guidance

In February 2016, the FASB issued *ASU, No. 2016-02, Leases.* This ASU consists of a comprehensive lease accounting standard. The guidance requires lessees to recognize assets and liabilities related to long-term leases on the balance sheet and expands disclosure requirements regarding leasing arrangements. The guidance is effective for reporting periods beginning after December 15, 2018 and early adoption is permitted. The guidance may be adopted on a modified retrospective basis and provides for certain practical expedients. We adopted this guidance effective January 1, 2019 as of the beginning of the period of adoption using the following practical expedients: we did not evaluate any expired leases, nor did we reassess the classification of any existing leases. The Company made an ongoing policy election whereby it will not recognize a lease liability or right of use asset for our short-term leases and that it will combine lease and non-lease elements of leases. The new guidance changes the way we account for our operating leases including recording the future benefits ("ROU assets") of those leases and the related discounted minimum lease payments on our consolidated balance sheets. Upon adoption we recorded a right of use asset of approximately $53,000 and a lease liability of approximately $75,700 on our consolidated balance sheet.

In June 2018, the FASB issued *ASU 2018-07, Compensation-Stock Compensation, Improvements to Nonemployee Share-Based Payment Accounting* This ASU expands the scope of *ASC 718, Compensation – Stock Compensation* to include share-based payment transactions for acquiring goods and services from nonemployees. This guidance provides for the following changes: (1) awards to nonemployees will be measured at the grant date fair value of equity instruments that the entity is obligated to issue, (2) performance-based awards to nonemployees will be measured based on the probability of the performance condition being met and (3) eliminating the need to reassess the classification (equity or liability) of awards to nonemployees upon vesting. The guidance is effective for fiscal years beginning after December 15, 2018. We adopted this guidance effective January 1, 2019. The adoption resulted in our generally measuring awards to nonemployees using the grant date fair value. The adoption did not have a material impact to our financial statements.

Unadopted Guidance

In June 2016, the FASB issued *ASU No. 2016-13, Financial Instrument's – Credit Losses*. This ASU relates to measuring credit losses on financial instruments, including trade receivables. The guidance eliminates the probable initial recognition threshold that was previously required prior to recognizing a credit loss on financial instruments. The credit loss estimate can now reflect an entity's current estimate of all future expected credit losses. Under the previous guidance, an entity only considered past events and current conditions. The guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years and early adoption is permitted. The adoption of certain amendments of this guidance must be applied on a modified retrospective basis and the adoption of the remaining amendments must be applied on a prospective basis. We currently expect that the adoption of this guidance will likely change the way we assess the collectability of our receivables and recoverability of other financial instruments. We have not yet begun to evaluate the specific impacts of this guidance nor have we determined the manner in which we will adopt this guidance.

In August 2018, the FASB issued *ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. This ASU addresses the disclosure requirements for fair value measurements. The guidance intends to improve the effectiveness of the disclosures relating to recurring and nonrecurring fair value measurements. The guidance is effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. Portions of the guidance are to be adopted prospectively while other portions are to be adopted retroactively. The Company is currently evaluating the impact, if any, that this guidance will have on the consolidated financial statements.

In August 2018, the FASB issued *ASU 2018-15, Intangibles – Goodwill and Other – Internal-Use Software* This ASU addresses the accounting for implementation, setup and other upfront costs paid by a customer in a cloud computing or hosting arrangement. The guidance aligns the accounting treatment of these costs incurred in a hosting arrangement treated as a service contract with the requirements for capitalization and amortization costs to develop or obtain internal-use software. The guidance is effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. The guidance can be adopted either retrospectively or prospectively. The Company is currently evaluating the impact, if any, that this guidance will have on the consolidated financial statements.

We have reviewed other recent accounting pronouncements and concluded that they are either not applicable to our business, or that no material effect is expected on the consolidated financial statements as a result of future adoption.

Note 3. Fair Value Measurements

Fair value is the price that would be received from the sale of an asset or paid to transfer a liability assuming an orderly transaction in the most advantageous market at the measurement date. U.S. GAAP establishes a hierarchical disclosure framework which prioritizes and ranks the level of observability of inputs used in measuring fair value. These levels are:

- *Level 1* – inputs are based upon unadjusted quoted prices for identical instruments traded in active markets.

- *Level 2* – inputs are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques (e.g. the Black-Scholes model) for which all significant inputs are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Where applicable, these models project future cash flows and discount the future amounts to a present value using market-based observable inputs including interest rate curves, foreign exchange rates, and forward and spot prices for currencies and commodities.

- *Level 3* – inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. The fair values are therefore determined using model-based techniques, including option pricing models and discounted cash flow models.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

We have segregated our financial assets and liabilities that are measured at fair value on a recurring into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date.

At March 31, 2019 and December 31, 2018, we had certain common stock purchase warrants that were originally issued in connection with our May 2016 and August 2017 offerings (See Note 4) that are accounted for as liabilities whose fair value was determined using Level 3 inputs. The following table identifies the carrying amounts of such liabilities:

	Level 1	Level 2	Level 3	Total
Liabilities				
Liability classified stock purchase warrants	$ -	$ -	$ 583,734	$ 583,734
Balance at December 31, 2018	$ -	$ -	$ 583,734	$ 583,734
Liability classified stock purchase warrants	$ -	$ -	$ 923,849	$ 923,849
Balance at March 31, 2019	$ -	$ -	$ 923,849	$ 923,849

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the three months ended March 31, 2019:

	Mark-to-market liabilities - stock purchase warrants
Balance at December 31, 2018	$ 583,734
Change in fair value - loss	340,115
Balance at March 31, 2019	$ 923,849

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the three months ended March 31, 2018:

	Mark-to-market liabilities - stock purchase warrants
Balance at December 31, 2017	$ 3,852,882
Change in fair value - gain	(190,219)
Balance at March 31, 2018	$ 3,662,663

The (gains) losses resulting from the changes in the fair value of the liability classified warrants are classified as other income or expense in the accompanying unaudited condensed consolidated statements of operations. The fair value of the common stock purchase warrants is determined based on the Black-Scholes option pricing model or other option pricing models as appropriate and includes the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends. Changes in any of the assumptions related to the unobservable inputs identified above may change the embedded conversion options' fair value; increases in expected term, anticipated volatility and expected dividends generally result in increases in fair value, while decreases in these unobservable inputs generally result in decreases in fair value.

Note 4. Stockholders' Equity

We have granted share-based compensation awards to employees, board members and service providers. Awards may consist of common stock, restricted common stock, restricted common stock units, common stock purchase warrants, or common stock purchase options. Our common stock purchase options and stock purchase warrants have lives of up to ten years from the grant date. Awards vest either upon the grant date or over varying periods of time. The stock options provide for exercise prices equal to or greater than the fair value of the common stock at the date of the grant. Restricted stock units grant the holder the right to receive fully paid common shares with various restrictions on the holder's ability to transfer the shares. As of March 31, 2019, we have approximately 0.5 million shares of common stock reserved for issuance upon the granting of awards under our equity incentive plans and the exercise of outstanding equity-linked instruments.

We typically record share-based compensation expense on a straight-line basis over the requisite service period. Share-based compensation expenses included in the statements of operations are as follows:

	Three Months Ended March 31	
	2019	**2018**
Research and development expenses	$ 200,337	$ 64,583
General and administrative expenses	137,629	174,252
Total	$ 337,966	$ 238,835

Stock Options

A summary of stock option activity and related information for the three months ended March 31, 2019 follows:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2019	81,633	$ 215.60	5.1	$ -
Granted	40,000	$ 8.60		
Exercised	-	$ -		$ -
Forfeited	-	$ -		
Outstanding at March 31 2019	121,633	$ 147.40	6.4	$ 19,040
Exercisable at March 31, 2019	89,789	$ 195.60	5.3	$ 5,712

Range of Exercise Prices			Number of Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
$8.00	-	$10.00	40,000	$ 8.60	9.7	$ 19,040
$20.00	-	$70.00	29,432	$ 23.00	7.1	-
$70.20	-	$260.00	26,612	$ 195.20	4.1	-
$260.20	-	$520.00	17,189	$ 295.80	2.8	-
$520.20	-	$780.00	3,275	$ 617.00	2.2	-
$780.20	-	$1,120.00	5,125	$ 900.60	4.3	-
			121,633	$ 147.40	6.4	$ 19,040

The Company uses the Black-Scholes option pricing model for “plain vanilla” options and other pricing models as appropriate to calculate the fair value of options. The Company generally uses the “simplified method” to estimate expected life. Significant assumptions used in these models include:

	Three Months Ended March 31, 2019		
Annual dividend		-	
Expected life (in years)	5.4	-	5.5
Risk free interest rate	2.4%	-	2.5%
Expected volatility		97%	

Options granted in the three months ended March 31, 2019, had a weighted average grant date fair value of $6.80 per share. There were no options granted in the three months ended March 31, 2018.

Unrecognized compensation cost for unvested stock option awards outstanding at March 31, 2019 was approximately $250,000 to be recognized over approximately 0.8 years.

In the three months ended March 31, 2019, the Company modified certain awards in conjunction with an employee’s termination. The modification provided for the accelerated vesting of all unvested awards and the extension of the post-employment exercise period. The modifications resulted in approximately $102,000 of additional research and development expenses in the three months ended March 31, 2019.

RSUs

We have granted restricted stock units (RSUs) to certain employees and board members that entitle the holders to receive shares of our common stock upon vesting and subject to certain restrictions regarding the exercise of the RSUs. The grant date fair value of RSUs is based upon the market price of the underlying common stock on the date of grant.

No RSU's were granted in either of the three months ended March 31, 2019 or 2018.

No RSUs vested in the three months ended March 31, 2019.

At March 31, 2019, we had 1,688 outstanding RSUs with a weighted average grant date fair value of $93.20 and a total intrinsic value of approximately $15,200. No RSUs were converted in the three months ended March 31, 2019. All outstanding RSU's were fully vested at March 31, 2019.

Restricted Stock

We have granted restricted stock to certain board members that vest quarterly over the grant year. The grant date fair value of the restricted stock is based upon the market price of the common stock on the date of grant.

No restricted stock was granted in either of the three months ended March 31, 2019 or 2018.

Restricted stock vesting in the three months ending March 31, 2019, had a weighted average grant date fair value of $22.20 and a total intrinsic value of approximately $5,100.

At March 31, 2019, we had 563 shares of restricted stock outstanding with a weighted average grant date fair value of $22.20. Unrecognized compensation cost for unvested restricted stock awards at March 31, 2019 was approximately $12,500 to be recognized over approximately 0.25 years.

Stock Purchase Warrants.

We have issued warrants to purchase common stock to certain officers, directors, stockholders and service providers as well as in conjunction with debt and equity offerings and at various times replacement warrants were issued as an inducement for warrant exercises.

In May 2016 and August 2017, we issued a total of 87,309 and 112,500 common stock purchase warrants, respectively in conjunction with our offerings. Such warrants are classified as liabilities due to the existence of certain net cash settlement provisions contained in the warrants. At March 31, 2019, after giving effect to exercises, 149,135 of these common stock purchase warrants remain outstanding and are recorded at fair value as mark-to-market liabilities (see Note 3).

In the three months ended March 31, 2019, we granted 25,000 warrants to an outside third party as partial compensation for services. The warrants have an exercise price of $6.00, expire January 2024 and have a grant date fair value of $3.80 per warrant. The warrants vest 25% on grant and 75% on completion of initial services; the warrants were fully vested as of March 31, 2019. The warrants were valued using the Black-Scholes option pricing model with the following inputs: no annual dividend, expected life of 2.5 years, risk-free rate of 2.5% and expected volatility of 110%.

A summary of outstanding warrants at March 31, 2019 follows:

Range of Exercise Prices			Number of Warrants Outstanding	Range of Expiration Dates
$6.00	-	$17.50	333,135	May 2021 - August 2024
$22.20	-	$115.80	1,731	May 2021 - May 2023
$256.00	-	$258.00	1,965	January 2022
$324.00	-	$326.00	8,727	March 2020
$442.00	-	$558.00	2,212	December 2019 - January 2021
$690.00	-	$784.00	11,828	October 2019 - October 2021
$1,046.20			577	July 2019
			360,175	

Preferred and Common Stock

We have outstanding 1,000,000 shares of Series A 4.5% Convertible Preferred Stock issued in December 2016. Shares of the Series A 4.5% Convertible Preferred Stock are convertible into 194,369 shares of the Company's common stock subject to certain ownership restrictions. In April 2019, 465,191 Series A 4.5% Convertible Preferred Stock shares were converted into 90,419 shares of common stock in accordance with their terms.

Note 5. Commitments and Contingencies

We currently operate one facility located in the United States and one facility located in China. Our corporate offices and primary research facilities are located in Germantown, Maryland, where we lease approximately 1,500 square feet. This lease provides for monthly payments of approximately $5,700 per month. Our prior lease expired on December 31, 2018. We are currently operating on a month-to-month lease as we negotiate an extension.

In 2015, we entered into a lease consisting of approximately 3,100 square feet of research space in San Diego, California. This lease provides for current monthly payments of approximately $13,000 and expires on August 31, 2019. In April 2018, we entered into an agreement for the sub-lease this property. Total minimum rentals to be received under the sub-lease are $62,200 at March 31, 2019.

We also lease a research facility in People's Republic of China. This lease expires on September 30, 2019 with lease payments of approximately $3,800 per month.

From time to time, we are parties to legal proceedings that we believe to be ordinary, routine litigation incidental to the business. We are currently not a party to any litigation or legal proceeding.

Note 6. Related Party Receivable

On August 10, 2016, we entered into a reimbursement agreement with a former executive officer. Pursuant to the reimbursement agreement, the former officer agreed to repay the Company, over a six-year period, approximately $658,000 in expenses that the Company determined to have been improperly paid under the Company's prior expense reimbursement policies. In addition to this reimbursement agreement, the Company has implemented and is continuing to implement enhanced policies and procedures for travel expense reimbursements and disbursements.

The $658,000 non-interest-bearing receivable was recorded net of a $199,000 discount to reflect the net present value of the future cash payments.

In March 2019, in conjunction with the employee's termination, we entered into a consulting agreement and release of claims agreement with the employee. As partial consideration for the release, we modified the reimbursement agreement to change the payment terms, extend the maturity and forgive approximately 50% of the outstanding receivable. At March 31, 2019, $229,000 remains outstanding and is due in payments through July 2025. The Company has concluded that this outstanding balance is not recoverable and recorded an allowance against the entire remaining balance.

Note 7. Subsequent Events

The Board of Directors approved a 1-for-20 reverse stock split of the Company's common stock effective July 17, 2019. Stockholders' equity and all references to share and per share amounts in the accompanying consolidated financial statements have been retroactively adjusted to reflect the 1-for-20 reverse stock split for all periods presented.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders of Neuralstem, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Neuralstem, Inc. and subsidiary (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2018, 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 consolidated financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 of the consolidated financial statements, the Company has suffered recurring losses from operations and has accumulated deficit that raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated 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 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 audits to obtain reasonable assurance about whether the consolidated 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 consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Dixon Hughes Goodman LLP

We have served as the Company's auditor since 2016.

Baltimore, Maryland
March 22, 2019, except for Note 10, as to which the date is July 22, 2019

Neuralstem, Inc.

Consolidated Balance Sheets

	December 31, 2018	December 31, 2017
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 5,787,110	$ 6,674,940
Short-term investments	-	5,000,000
Trade and other receivables	294,057	312,802
Current portion of related party receivable, net of discount	63,938	58,784
Prepaid expenses	363,288	402,273
Total current assets	6,508,393	12,448,799
Property and equipment, net	90,311	172,886
Patents, net	763,543	883,462
Related party receivable, net of discount and current portion	298,238	365,456
Other assets	23,965	13,853
Total assets	$ 7,684,450	$ 13,884,456
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 832,564	$ 875,065
Accrued bonuses	-	418,625
Other current liabilities	218,602	220,879
Total current liabilities	1,051,166	1,514,569
Warrant liabilities, at fair value	583,734	3,852,882
Other long term liabilities	-	1,876
Total liabilities	1,634,900	5,369,327
Commitments and contingencies (Note 8)		
STOCKHOLDERS' EQUITY		
Preferred stock, 7,000,000 shares authorized, $0.01 par value; 1,000,000 shares issued and outstanding in both 2018 and 2017	10,000	10,000
Common stock, $0.01 par value; 300 million shares authorized, 910,253 and 758,001 shares issued and outstanding in 2018 and 2017, respectively	9,103	7,580
Additional paid-in capital	219,654,753	217,194,194
Accumulated other comprehensive income (loss)	(413)	2,631
Accumulated deficit	(213,623,893)	(208,699,276)
Total stockholders' equity	6,049,550	8,515,129
Total liabilities and stockholders' equity	$ 7,684,450	$ 13,884,456

See accompanying notes to consolidated financial statements.

Neuralstem, Inc.

Consolidated Statements of Operations and Comprehensive Loss

	Year Ended December 31, 2018	2017
Revenues	$ 260,000	$ 260,000
Operating expenses:		
Research and development costs	3,960,191	8,096,095
General and administrative expenses	4,559,265	5,471,010
Total operating expenses	8,519,456	13,567,105
Operating loss	(8,259,456)	(13,307,105)
Other income (expense):		
Interest income	78,780	70,269
Interest expense	(7,698)	(159,066)
Gain (loss) from change in fair value of liability classified warrants	3,269,148	(1,470,174)
Fees related to issuance of liability classified warrants and other expenses	(5,391)	(799,907)
Total other income (expense)	3,334,839	(2,358,878)
Net loss	$ (4,924,617)	$ (15,665,983)
Net loss per common share - basic and diluted	$ (6.50)	$ (23.98)
Weighted average common shares outstanding - basic and diluted	757,846	653,221
Comprehensive loss:		
Net loss	$ (4,924,617)	$ (15,665,983)
Foreign currency translation adjustment	(3,044)	(1,274)
Comprehensive loss	$ (4,927,661)	$ (15,667,257)

See accompanying notes to consolidated financial statements.

Neuralstem, Inc.

Consolidated Statements of Changes In Stockholders' Equity

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at January 1, 2017	**1,000,000**	**$ 10,000**	**551,643**	**$ 5,516**	**$ 204,344,650**	**$ 3,905**	**$ (193,033,293)**	**$ 11,330,778**
Share rounding adjustment relating to 1:13 reverse stock split	-	-	327	3	(3)	-	-	-
Share based payments	-	-	-	-	1,769,964	-	-	1,769,964
Issuance of common stock and inducement warrants for warrant exercises	-	-	50,673	507	7,811,470	-	-	7,811,977
Issuance of common stock for RSU exercises	-	-	247	2	(2)	-	-	-
Issuance of common stock and warrants from capital raises, net	-	-	151,120	1,511	3,268,156	-	-	3,269,667
Issuance of restricted stock awards	-	-	3,991	40	(40)	-	-	-
Foreign currency translation adjustments	-	-	-	-	-	(1,274)	-	(1,274)
Net loss	-	-	-	-	-	-	(15,665,983)	(15,665,983)
Balance at December 31, 2017	**1,000,000**	**10,000**	**758,001**	**7,579**	**217,194,195**	**2,631**	**(208,699,276)**	**8,515,129**
Share based payments	-	-	-	-	634,082	-	-	634,082
Issuance of common stock and warrants from capital raises, net	-	-	150,000	1,500	1,826,500	-	-	1,828,000
Issuance of restricted stock awards			2,252	23	(23)	-	-	-
Foreign currency translation adjustments	-	-	-	-	-	(3,044)	-	(3,044)
Net loss	-	-	-	-	-	-	(4,924,617)	(4,924,617)
Balance at December 31, 2018	**1,000,000**	**$ 10,000**	**910,253**	**$ 9,102**	**$ 219,654,754**	**$ (413)**	**$ (213,623,893)**	**$ 6,049,550**

See accompanying notes to consolidated financial statements.

Neuralstem, Inc.

Consolidated Statements of Cash Flows

	Year Ended December 31, 2018	2017
Cash flows from operating activities:		
Net loss	$ (4,924,617)	$ (15,665,983)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	185,803	289,208
Share based compensation expenses	634,082	1,769,964
Amortization of deferred financing fees and debt discount	-	59,781
Change in fair value of liability classified warrants	(3,269,148)	1,470,174
Warrant inducement expense	-	563,744
Expenses related to issuance of liability classified warrants	-	242,676
Loss on disposal of fixed assets and patent abandonment	18,342	8,128
Changes in operating assets and liabilities:		
Trade and other receivables	18,745	(302,311)
Related party receivable	62,064	53,081
Prepaid expenses	32,303	297,298
Other assets	(3,991)	1,855
Accounts payable and accrued expenses	(36,991)	(1,522,917)
Accrued bonuses	(418,625)	(434,338)
Other current liabilities	11,490	(230,189)
Other long term liabilities	(1,876)	(16,333)
Net cash used in operating activities	(7,692,419)	(13,416,162)
Cash flows from investing activities:		
Purchases of short-term investments	-	(5,000,000)
Maturity of short-term investments	5,000,000	5,000,000
Patent costs	-	(82,645)
Purchase of property and equipment	(1,714)	(11,401)
Net cash provided by (used in) investing activities	4,998,286	(94,046)
Cash flows from financing activities:		
Proceeds from issuance of common stock from warrants exercised, net of issuance costs	-	3,225,176
Proceeds from sale of common stock, preferred stock and warrants, net of issuance costs	1,828,000	5,510,840
Payments of long-term debt	-	(3,765,568)
Proceeds from short term notes payable	349,578	346,863
Payments of short term notes payable	(363,345)	(326,533)
Net cash provided by financing activities	1,814,233	4,990,778
Effects of exchange rates on cash	(7,930)	(579)
Net decrease in cash and cash equivalents	(887,830)	(8,520,009)
Cash and cash equivalents, beginning of year	6,674,940	15,194,949
Cash and cash equivalents, end of year	$ 5,787,110	$ 6,674,940

See accompanying notes to consolidated financial statements.

Neuralstem, Inc.

Consolidated Statements of Cash Flows (continued)

	Year Ended December 31,	
	2018	**2017**
Supplemental cash flow information:		
Cash paid for interest	$ 7,698	$ 118,257

See accompanying notes to consolidated financial statements.

NEURALSTEM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Organization and Business and Financial Condition

Nature of business
Neuralstem, Inc. and its subsidiary are referred to as "Neuralstem," the "Company," "us," or "we" throughout this report. The operations of our wholly-owned and controlled subsidiary located in the People's Republic of China are consolidated in our condensed consolidated financial statements and all intercompany activity has been eliminated. The Company operates in one business segment.

Neuralstem is a clinical stage biopharmaceutical company that is utilizing its proprietary human neural stem cell technology to create a comprehensive platform of therapies for the treatment of central nervous system diseases. The Company has utilized this technology as a tool for small-molecule drug discovery and to create cell therapy biotherapeutics to treat central nervous system diseases. The Company was founded in 1997 and currently has laboratory and office space in Germantown, Maryland and laboratory facilities in the People's Republic of China. Our operations to date have primarily focused on developing business strategies, raising capital, research and development activities, and conducting pre-clinical testing and human clinical trials of our product candidates.

Liquidity and Going Concern
The Company has incurred losses since its inception and has not demonstrated an ability to generate significant revenues from the sales of its therapies or services and have not yet achieved profitable operations. There can be no assurance that profitable operations will ever be achieved, or if achieved, could be sustained on a continuing basis. In addition, development activities, clinical and pre-clinical testing, and commercialization of our products will require significant additional financing. These factors create substantial doubt about the Company's ability to continue as a going concern within one year after the date that the consolidated financial statements are issued. The consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern. Accordingly, the consolidated financial statements have been prepared on a basis that assumes the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the ordinary course of business.

In making this assessment the Company performed a comprehensive analysis of its current circumstances including: its financial position at December 31, 2018, its cash flow and cash usage forecasts for the period covering one-year from the issuance date of this Annual Report and its current capital structure including outstanding warrants and other equity-based instruments and its obligations and debts.

We expect that our existing cash and cash equivalents will be sufficient to enable us to fund our anticipated level of operations based on our current operating plans into the third quarter of 2019. Accordingly, we will require additional capital to further develop our product candidates, conduct our pre-clinical and clinical development programs and to fund our operations. We anticipate raising additional capital through the private and public sales of our equity or debt securities, collaborative arrangements, licensing agreements or a combination thereof. Although management believes that such capital sources will be available, there can be no assurance that any such collaborative or licensing arrangements will be entered into or that financing will be available to us when needed in order to allow us to continue our operations, or if available, on terms acceptable to us. If we do not raise sufficient capital in a timely manner, among other things, we may be forced to delay, scale back or eliminate some or all of our research and product development programs, planned clinical trials, and/or our capital expenditures or to license our potential products or technologies to third parties on unfavorable terms. We currently do not have any commitments for future funding from any source.

We have spent and will continue to spend substantial funds in the research, development, pre-clinical and clinical testing of our small molecule and stem cell product candidates with the goal of ultimately obtaining approval from the United States Food and Drug Administration (the "FDA") and its international equivalents regulatory agencies, to market and sell our products. We have also begun spending funds on the evaluation and new assets and technologies with the goal of acquisition and development. No assurance can be given that (i) the FDA or any other regulatory agency will grant approval for us to market and sell our product candidates, (ii) if regulatory approval is granted, that we will ever be able to sell our proposed products or be profitable, or (iii) that we will be able to identify and acquire and/or in-license promising new assets or technologies.

Note 2. Significant Accounting Policies and Basis of Presentation

Basis of Presentation
Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The financial statements include the accounts of the Company and our wholly owned subsidiary. All significant intercompany transactions and balances have been eliminated.

Use of Estimates
The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The consolidated financial statements include significant estimates for the expected economic life and value of our licensed technology and related patents, our net operating loss and related valuation allowance for tax purposes, the fair value of our liability classified warrants and our share-based compensation related to employees and directors, consultants and advisors, among other things. Because of the use of estimates inherent in the financial reporting process, actual results could differ significantly from those estimates.

Fair Value Measurements

The carrying amounts of our short-term financial instruments, which primarily include cash and cash equivalents, short-term investments, accounts payable and accrued expenses, approximate their fair values due to their short maturities. The fair value of our long-term indebtedness was estimated based on the quoted prices for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities and approximates the carrying value. The fair values of our liability classified warrants were estimated using Level 3 unobservable inputs. See Note 3 for further details.

Foreign Currency Translation

The functional currency of our wholly owned foreign subsidiary is its local currency. Assets and liabilities of our foreign subsidiary are translated into United States dollars based on exchange rates at the end of the reporting period; income and expense items are translated at the weighted average exchange rates prevailing during the reporting period. Translation adjustments for subsidiary are accumulated in other comprehensive income or loss, a component of stockholders' equity. Transaction gains or losses are included in the determination of net loss.

Cash, Cash Equivalents, Short-Term Investments and Credit Risk

Cash equivalents consist of investments in low risk, highly liquid money market accounts and certificates of deposit with original maturities of 90 days or less. Cash deposited with banks and other financial institutions may exceed the amount of insurance provided on such deposits. If the amount of a deposit at any time exceeds the federally insured amount at a bank, the uninsured portion of the deposit could be lost, in whole or in part, if the bank were to fail.

Short-term investments consist entirely of fixed income certificates of deposit ("CDs") with original maturities of greater than 90 days but not more than one year.

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents and short-term investments. Our investment policy, approved by our Board of Directors, limits the amount we may invest in any one type of investment issuer, thereby reducing credit risk concentrations. In addition, our certificates of deposit are typically invested through the Certificate of Deposit Account Registry Service ("CDARS") program which reduces or eliminates our risk related to concentrations of investments above FDIC insurance levels. We attempt to limit our credit and liquidity risks through our investment policy and through regular reviews of our portfolio against our policy. To date, we have not experienced any loss or lack of access to cash in our operating accounts or to our cash equivalents and short-term investments.

Revenue

On January 1, 2018, the Company adopted Topic 606, Revenue from Contracts with Customer using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. The Company analyzes contracts to determine the appropriate revenue recognition using the following steps: (i) identification of contracts with customers; (ii) identification of distinct performance obligations in the contract; (iii) determination of contract transaction price; (iv) allocation of contract transaction price to the performance obligations; and (v) determination of revenue recognition based on timing of satisfaction of the performance obligation. The Company recognizes revenues upon the satisfaction of its performance obligation (upon transfer of control of promised goods or services to customers) in an amount that reflects the consideration to which it expects to be entitled to in exchange for those goods or services. Deferred revenue results from cash receipts from or amounts billed to customers in advance of the transfer of control of the promised services to the customer and is recognized as performance obligations are satisfied. When sales commissions or other costs to obtain contracts with customers are considered incremental and recoverable, those costs are deferred and then amortized as selling and marketing expenses on a straight-line basis over an estimated period of benefit.

Research and Development

Research and development costs are expensed as they are incurred. Research and development expenses consist primarily of costs associated with the pre-clinical development and clinical trials of our product candidates. For the years ended December 31, 2018 and 2017, we recorded approximately $538,000 and $41,000, respectively of cost reimbursements from our grants as an offset to research and development expenses. The Company evaluated the grants and concluded that, based on the specific terms, they represent a cost reimbursement activity as opposed to a revenue generating activity, and are best reflected as an offset to the underlying research and development expense.

Income (Loss) per Common Share

Basic income (loss) per common share is computed by dividing total net income (loss) available to common stockholders by the weighted average number of common shares outstanding during the period.

For periods of net income when the effects are dilutive, diluted earnings per share is computed by dividing net income available to common stockholders by the weighted average number of shares outstanding and the dilutive impact of all dilutive potential common shares. Dilutive potential common shares consist primarily of convertible preferred stock, stock options, restricted stock units and common stock purchase warrants. The dilutive impact of potential common shares resulting from common stock equivalents is determined by applying the treasury stock method. Our unvested restricted shares contain non-forfeitable rights to dividends, and therefore are considered to be participating securities; the calculation of basic and diluted income per share excludes net income attributable to the unvested restricted shares from the numerator and excludes the impact of the shares from the denominator.

For all periods of net loss, diluted loss per share is calculated similarly to basic loss per share because the impact of all dilutive potential common shares is anti-dilutive due to the net losses; accordingly, diluted loss per share is the same as basic loss per share for the years ended December 31, 2018 and 2017. A total of approximately 0.6 and 0.5 million potential dilutive shares have been excluded in the calculation of diluted net income per share for the years ended December 31, 2018 and 2017, respectively as their inclusion would be anti-dilutive.

Share-Based Compensation

We account for share-based compensation at fair value. Share-based compensation cost for stock options and stock purchase warrants granted to employees and board members is generally determined at the grant date while awards granted to non-employee consultants are generally valued at the vesting date using an option pricing model that uses Level 3 unobservable inputs; share-based compensation cost for restricted stock and restricted stock units is determined at the grant date based on the closing price of our common stock on that date. The value of the award is recognized as expense on a straight-line basis over the requisite service period.

Intangible and Long-Lived Assets

We assess impairment of our long-lived assets using a "primary asset" approach to determine the cash flow estimation period for a group of assets and liabilities that represents the unit of accounting for a long-lived asset to be held and used. Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. No significant impairment losses were recognized during the years ended December 31, 2018 or 2017.

Income Taxes

We account for income taxes using the asset and liability approach, which requires the recognition of future tax benefits or liabilities on the temporary differences between the financial reporting and tax bases of our assets and liabilities. A valuation allowance is established when necessary to reduce deferred tax assets to the amounts expected to be realized. We also recognize a tax benefit from uncertain tax positions only if it is “more likely than not” that the position is sustainable based on its technical merits. Our policy is to recognize interest and penalties on uncertain tax positions as a component of income tax expense.

Corporate tax rate changes resulting from the impacts of the Tax Cuts and Jobs Act of 2017 (the “Tax Act”) are reflected in deferred tax assets and liabilities at both December 31, 2018 and 2017.

Significant New Accounting Pronouncements

Recently Adopted Guidance

In May 2014, the Financial Accounting Standards Board (“FASB”) issued *Accounting Standard Update (“ASU”), No. 2014-09, Revenue from Contracts with Customers*. This ASU consists of a comprehensive revenue recognition standard that superseded nearly all existing revenue recognition guidance under U.S. GAAP. The guidance is effective for interim and annual periods beginning after December 15, 2017. Either full retrospective adoption or modified retrospective adoption is permitted. In addition to expanded disclosures regarding revenue, this pronouncement may impact timing of recognition in some arrangements with variable consideration or contracts for the sale of goods or services. We adopted this guidance effective January 1, 2018 on a modified retrospective basis and it did not have a material impact on the consolidated financial statements.

In May 2017, the FASB issued *ASU No. 2017-09, Compensation – Stock Compensation*. This ASU provides clarification regarding when changes to the terms or conditions of share-based payment awards should be accounted for as modifications. This guidance is effective for fiscal years beginning after December 15, 2017 and early adoption is permitted. This guidance must be applied prospectively to awards modified after the adoption date. We adopted this guidance effective January 1, 2018 and it did not have a material impact on the consolidated financial statements.

In July 2017, the FASB issued *ASU No. 2017-11, I. Accounting for Certain Financial Instrument with Down Round Features II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception.* Part I of this guidance simplifies the accounting for certain equity-linked financial instruments and embedded features with down round features that reduce the exercise price when the pricing of a future round of financing is lower (“down round protection”). Current accounting guidance provides that instruments with down round protection be classified as derivative liabilities with changes in fair value recorded through earnings. The updated guidance provides that instruments with down round protection are no longer precluded from being classified as equity. This guidance is effective for fiscal years beginning after December 15, 2018 and early adoption is permitted. This guidance must be applied retrospectively. We adopted this guidance on January 1, 2018, and it did not have a material impact on the financial statements.

Unadopted Guidance

In February 2016, the FASB issued *ASU, No. 2016-02, Leases.* This ASU consists of a comprehensive lease accounting standard. The guidance requires lessees to recognize assets and liabilities related to long-term leases on the balance sheet and expands disclosure requirements regarding leasing arrangements. The guidance is effective for reporting periods beginning after December 15, 2018 and early adoption is permitted. The guidance must be adopted on a modified retrospective basis and provides for certain practical expedients. We currently expect that the adoption of this guidance will likely change the way we account for our operating leases and will likely result in recording the future benefits of those leases and the related minimum lease payments on our consolidated balance sheets. The Company expects to make a policy election whereby it will not recognize a lease liability or right of use asset for our short-term leases and that it will combine lease and non-lease elements of leases. Based on our current lease portfolio, we expect the adoption of the guidance will result in recording a right of use asset of approximately $50,000 and a lease liability of approximately $75,000 on our consolidated balance sheet.

In June 2016, the FASB issued *ASU No. 2016-13, Financial Instrument's – Credit Losses*. This ASU relates to measuring credit losses on financial instruments, including trade receivables. The guidance eliminates the probable initial recognition threshold that was previously required prior to recognizing a credit loss on financial instruments. The credit loss estimate can now reflect an entity's current estimate of all future expected credit losses. Under the previous guidance, an entity only considered past events and current conditions. The guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The adoption of certain amendments of this guidance must be applied on a modified retrospective basis and the adoption of the remaining amendments must be applied on a prospective basis. We currently expect that the adoption of this guidance will likely change the way we assess the collectability of our receivables and recoverability of other financial instruments. We have not yet begun to evaluate the specific impacts of this guidance nor have we determined the manner in which we will adopt this guidance.

In June 2018, the FASB issued *ASU 2018-07, Compensation-Stock Compensation, Improvements to Nonemployee Share-Based Payment Accounting* This ASU expands the scope of *ASC 718, Compensation – Stock Compensation* to include share-based payment transactions for acquiring goods and services from nonemployees. This guidance provides for the following changes: (1) awards to nonemployees will be measured at the grant date fair value of equity instruments that the entity is obligated to issue, (2) performance-based awards to nonemployees will be measured based on the probability of the performance condition being met and (3) eliminating the need to reassess the classification (equity or liability) of awards to nonemployees upon vesting. The guidance is effective for fiscal years beginning after December 15, 2018. We expect the adoption of this guidance will change the way we measure awards to nonemployees. We have not yet determined the specific impacts of this guidance upon adoption.

In August 2018, the FASB issued *ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. This ASU addresses the disclosure requirements for fair value measurements. The guidance intends to improve the effectiveness of the disclosures relating to recurring and nonrecurring fair value measurements. The guidance is effective for fiscal years beginning after December 15, 2019. Portions of the guidance are to be adopted prospectively while other portions are to be adopted retroactively. Early adoption is permitted. The Company is currently evaluating the impact, if any, that this guidance will have on the consolidated financial statements. The Company is currently evaluating the impact, if any, that this guidance will have on the consolidated financial statements.

In August 2018, the FASB issued *ASU 2018-15, Intangibles – Goodwill and Other – Internal-Use Software* This ASU addresses the accounting for implementation, setup and other upfront costs paid by a customer in a cloud computing or hosting arrangement. The guidance aligns the accounting treatment of these costs incurred in a hosting arrangement treated as a service contract with the requirements for capitalization and amortization costs to develop or obtain internal-use software. The guidance is effective for fiscal years beginning after December 15, 2019. The guidance can be adopted either retrospectively or prospectively. Early adoption is permitted. The Company is currently evaluating the impact, if any, that this guidance will have on the consolidated financial statements.

We have reviewed other recent accounting pronouncements and concluded that they are either not applicable to our business, or that no material effect is expected on the consolidated financial statements as a result of future adoption.

Note 3. Fair Value Measurements

Fair value is the price that would be received from the sale of an asset or paid to transfer a liability assuming an orderly transaction in the most advantageous market at the measurement date. U.S. GAAP establishes a hierarchical disclosure framework which prioritizes and ranks the level of observability of inputs used in measuring fair value. These levels are:

- *Level 1* – inputs are based upon unadjusted quoted prices for identical instruments traded in active markets.
- *Level 2* – inputs are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques (e.g. the Black-Scholes model) for which all significant inputs are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Where applicable, these models project future cash flows and discount the future amounts to a present value using market-based observable inputs including interest rate curves, foreign exchange rates, and forward and spot prices for currencies and commodities.
- *Level 3* – inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. The fair values are therefore determined using model-based techniques, including option pricing models and discounted cash flow models.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

We have segregated our financial assets and liabilities that are measured at fair value on a recurring into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date.

At December 31, 2018 and December 31, 2017, we had certain common stock purchase warrants that were originally issued in connection with our May 2016 and August 2017 capital raises (See Note 4) that are accounted for as liabilities whose fair value was determined using Level 3 inputs. The following table identifies the carrying amounts of such liabilities:

	Level 1	Level 2	Level 3	Total
Liabilities				
Liability classified stock purchase warrants	$ -	$ -	$ 3,852,882	$ 3,852,882
Balance at December 31, 2017	$ -	$ -	$ 3,852,882	$ 3,852,882
Liability classified stock purchase warrants	$ -	$ -	$ 583,734	$ 583,734
Balance at December 31, 2018	$ -	$ -	$ 583,734	$ 583,734

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the year ended December 31, 2018:

	Mark-to-market liabilities - stock purchase warrants
Balance at December 31, 2017	$ 3,852,882
Change in fair value - gain	(3,269,148)
Balance at December 31, 2018	$ 583,734

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the year ended December 31, 2017:

	Mark-to-market liabilities - stock purchase warrants
Balance at December 31, 2016	$ 3,921,917
Issuance of warrants	2,483,848
Exercise of warrants	(4,023,057)
Change in fair value - loss	1,470,174
Balance at December 31, 2017	$ 3,852,882

The (gains) losses resulting from the changes in the fair value of the liability classified warrants are classified as other income or expense in the accompanying consolidated statements of operations. The fair value of the common stock purchase warrants is determined based on the Black-Scholes option pricing model or other option pricing models as appropriate and includes the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends. Changes in any of the assumptions related to the unobservable inputs identified above may change the embedded conversion options' fair value; increases in expected term, anticipated volatility and expected dividends generally result in increases in fair value, while decreases in these unobservable inputs generally result in decreases in fair value.

Note 4. Stockholders' Equity

We have granted share-based compensation awards to employees, board members and service providers. In addition, we have issued warrants to purchase common stock in conjunction with debt and equity offerings. Awards may consist of common stock, restricted common stock, restricted common stock units, common stock purchase warrants, or common stock purchase options. Our common stock purchase options and stock purchase warrants have lives of up to ten years from the grant date. Awards vest either upon the grant date or over varying periods of time. The stock options provide for exercise prices equal to or greater than the fair value of the common stock at the date of the grant. Restricted stock units grant the holder the right to receive fully paid common shares with various restrictions on the holder's ability to transfer the shares. As of December 31, 2018, we have approximately 0.5 million shares of common stock reserved for issuance upon the exercise of share-based awards.

We record share-based compensation expense on a straight-line basis over the requisite service period. Share-based compensation expense included in the statements of operations was as follows:

	Year Ended December 31,	
	2018	**2017**
Research and development costs	$ 133,334	$ 1,091,036
General and administrative expenses	500,748	678,928
Total	$ 634,082	$ 1,769,964

Stock Options

A summary of stock option activity and related information for the year ended December 31, 2018 follows:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2018	94,704	$ 395.20	4.7	$ 108,000
Granted	24,432	$ 22.60		$ -
Exercised	-	-		
Forfeited/Expired	(37,503)	$ 543.80		
Outstanding at December 31, 2018	81,633	$ 215.60	5.1	$ -
Exercisable at December 31, 2018	58,306	$ 291.80	4.4	$ -

Range of Exercise Prices	Number of Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
$20.00 - $70.00	29,432	$ 23.00	7.3	$ -
$70.20 - $260.00	26,612	$ 195.20	4.3	-
$260.20 - $520.00	17,189	$ 295.80	3.1	-
$520.20 - $780.00	3,275	$ 617.00	2.5	-
$780.20 - $1,120.00	5,125	$ 900.60	4.6	-
	81,633	$ 215.60	5.1	$ -

The Company uses the Black-Scholes option pricing model for “plain vanilla” options and other pricing models as appropriate to calculate the fair value of options. Significant assumptions used in these models include:

	Year Ended December 31,	
	2018	2017
Annual dividend	-	-
Expected life (in years)	2.5 - 5.3	0.3 - 6.5
Risk free interest rate	2.5% - 2.8%	0.80% - 2.22%
Expected volatility	97% - 113%	62.2% - 98.0%

Options granted in the years ended December 31, 2018 and 2017 had weighted average grant date fair values of $9.40 and $26.80, respectively. The total fair value of the options vested during the years ended December 31, 2018 and 2017 was approximately $205,000 and $302,000, respectively.

Unrecognized compensation cost for unvested stock option awards outstanding at December 31, 2018 was approximately $179,000 to be recognized over approximately 1.9 years.

On December 12, 2018, the Company granted to its incoming Executive Chairman under the Inducement Award Stock Option Plan a stock option award to purchase 40,000 shares of common stock at a price of $8.50 per share. The award has a term of ten years and vests as follows: (i) 10,000 options vest on the employee start date, (ii) 10,000 vest over a two-year period and (iii) 20,000 vest based on the achievement of certain milestones. The Executive Chairman commenced employment on January 1, 2019 and the Company considers this to be the accounting grant date of the award. Consequently, the award is not included in any of the disclosures noted above.

RSUs

We have granted restricted stock units (RSU’s) that entitle the holders to receive shares of our common stock upon vesting and subject to certain restrictions regarding the exercise of the RSU’s and the holders’ ability to transfer the shares received upon exercise. The fair value of RSU’s granted is based upon the market price of the underlying common stock as if they were vested and issued on the date of grant.

A summary of our RSU activity for the year ended December 31, 2018 follows:

	Number of RSU's		Weighted-Average Grant Date Fair Value
Outstanding at January 1, 2018	562	$	235.40
Granted	2,252	$	22.20
Exercised and converted to common shares	-	$	-
Forfeited	-	$	-
Outstanding at December 31, 2018	2,814	$	64.80
Exercisable at December 31, 2018	1,688	$	93.20

The total intrinsic value of the outstanding RSU's at December 31, 2018 was approximately $17,000. The total fair value of RSU's vested during the years ended December 31, 2018 and 2017, was approximately $50,000 and $25,000, respectively. The total value of all RSU's that were converted in the year ended December 31, 2017 was approximately $23,000. No RSU's were converted in the year ended December 31, 2018.

Unrecognized compensation cost for unvested RSU's outstanding at December 31, 2018 was approximately $25,000 to be recognized over approximately 0.5 years.

Restricted Stock

We have granted restricted stock to certain board members.

A summary of our restricted stock activity for the year ended December 31, 2018 is as follows:

	Shares of Restricted Stock		Weighted-Average Grant Date Fair Value
Outstanding at January 1, 2018	2,498	$	60.00
Granted	2,252	$	22.20
Vested	(3,624)	$	48.20
Forfeited	-	$	-
Outstanding at December 31, 2018	1,126	$	22.20

The total intrinsic value of the outstanding restricted stock at December 31, 2018 was approximately $7,000. The total intrinsic value of all restricted stock vested in the year ended December 31, 2018 was approximately $84,000.

Unrecognized compensation cost for unvested restricted stock outstanding at December 31, 2018 was approximately $25,000 to be recognized over approximately 0.5 years.

Stock Purchase Warrants

We have issued warrants to purchase common stock to certain officers, directors, stockholders and service providers as well as in conjunction with debt and equity offerings and at various times replacement warrants were issued as an inducement for warrant exercises.

In May 2016 and August 2017, we issued a total of 87,309 and 112,500 common stock purchase warrants, respectively in conjunction with the offering of our securities. Such warrants are classified as liabilities due to the existence of certain net cash settlement provisions contained in the warrants. At December 31, 2018, after giving effect to exercises, 149,135 of these common stock purchase warrants remain outstanding and are recorded at fair value as mark-to-market liabilities (see Note 3). In conjunction with our October 2018 common stock and common stock purchase warrant offerings, the exercise price on these 149,135 outstanding common stock purchase warrants was adjusted pursuant to existing down-round anti-dilution features. The exercise prices decreased from $40.00 per share of common stock to $11.40 per share of common stock.

In October 2018, we issued 150,000 common stock purchase warrants to investors in conjunction with the registered direct offering of our common stock. We also issued an additional 9,000 common stock purchase warrants to our placement agent. (see below under "Preferred and Common Stock'). The investor and placement agent common stock purchase warrants have an exercise price of $15.00 and $17.50, respectively.

A summary of outstanding warrants at December 31, 2018 follows:

Range of Exercise Prices			Number of Warrants Outstanding	Range of Expiration Dates
$11.40	-	$17.50	308,135	May 2021 - August 2024
$22.20	-	$115.80	1,731	May 2021 - May 2023
$256.00	-	$258.00	1,965	January 2022
$324.00	-	$326.00	8,727	March 2020
$442.00	-	$558.00	7,688	March 2019 - January 2021
$690.00	-	$784.00	11,828	October 2019 - October 2021
$946.00	-	$1,044.00	13,795	January 2019 - July 2019
			353,869	

Preferred and Common Stock

We have outstanding 1,000,000 shares of Series A 4.5% Convertible Preferred Stock issued in December 2016. Shares of the Series A 4.5% Convertible Preferred Stock are convertible into 194,369 shares of the Company's common stock subject to certain ownership restrictions.

In October 2018, we closed a registered direct offering and concurrent private placement with institutional investors. In connection with the offering we issued an aggregate of 150,000 shares of common stock in the registered direct offering and 150,000 common stock purchase warrants in the private placement. We issued the shares in the registered offering at a price of $14.00 per share. We also issued each investor an accompanying warrant for each share purchased. We received gross proceeds of $2.1 million from this offering. The warrants have an exercise price of $15.00 per share of common stock, will be exercisable commencing with the six-month anniversary of the issuance date and will expire five and one-half years from issuance. The common stock issued in this offering was sold pursuant to our shelf registration statement that was declared effective by the SEC on June 23, 2017 (Registration No. 333-218608). In connection with the offering we also issued our placement agent 9,000 common stock purchase warrants. The placement agent warrants are substantially similar to the investor warrants except that they have an exercise price of $17.50 per share and a term of 5 years.

Note 5. Property and Equipment

The major classes of property and equipment consist of the following at December 31:

	2018	2017
Furniture and fixtures	$ 35,407	$ 35,407
Computers and office equipment	138,897	138,897
Lab equipment	818,267	820,507
	992,571	994,811
Less accumulated depreciation	(902,260)	(821,925)
Property and equipment, net	$ 90,311	$ 172,886

The above includes approximately $71,000 of equipment located at our research facility in China. Property and equipment are recorded at cost and are depreciated using the straight-line method over the estimated useful lives of the respective assets. Depreciation expense for the years ended December 31, 2018 and 2017, was approximately $84,000 and $100,000, respectively

Note 6. Patents

The Company holds patents related to its stem cell and small molecule technologies. Patent costs are capitalized and are being amortized over the life of the patents. The weighted average remaining unamortized life of issued patents was approximately 9.3 years at December 31, 2018. Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less cost to sell. During the years ended December 31, 2018 and 2017, no significant impairment losses were recognized. The Company's intangible assets and accumulated amortization consisted of the following at December 31, 2018 and 2017:

	2018	2017
Patent asset	$ 2,006,443	$ 2,028,557
Accumulated amortization	(1,242,900)	(1,145,095)
Net intangibles	$ 763,543	$ 883,462

Amortization expense for the years ended December 31, 2018 and 2017 was approximately $102,000 and $189,000, respectively. The expected average future annual amortization expense over the next five years is approximately $80,000 based on current balances of our intangible assets.

Note 7. Income Taxes

Our provision for income taxes for the years ended December 31, 2018 and 2017 consists of the following:

		2018	2017
Current provision:			
	Federal	$ -	$ -
	State	-	-
	Foreign	-	-
Total current provision		-	-
Deferred provision (benefit):			
	Federal	7,726	17,837,120
	State	(2,749,386)	1,417,482
	Foreign	-	-
Total deferred provision (benefit)		(2,741,660)	19,254,602
Valuation allowance		2,741,660	(19,254,602)
Consolidated income tax provision		$ -	$ -

We provide a full valuation allowance on our net deferred tax assets because management has determined that it is more likely than not that we will not earn income sufficient to realize the deferred tax assets during the asset reversal periods.

The difference between income taxes computed by applying the statutory federal income tax rate to consolidated losses before income taxes and the consolidated provision for income taxes is attributable to the following:

	2018	2017
Federal statutory rate	(21.0%)	(34.0%)
State income taxes, net of Federal benefits	(5.0%)	(4.1%)
Rate changes	(66.3%)	155.0%
Change in fair value of liability classified warrants	(17.3%)	(3.6%)
Other, including non-deductible expenses	53.9%	9.6%
Valuation allowance	55.7%	(122.9%)
Total	0.0%	0.0%

The tax effects of significant temporary differences representing deferred tax assets as of December 31, 2018 and 2017 are:

	2018	2017
Net operating loss carryforwards	$ 42,580,533	$ 35,610,806
Stock based compensation expense	2,643,471	6,764,508
Tax credit carryforwards and other	1,005,255	1,112,286
Gross deferred tax assets	46,229,259	43,487,600
Valuation allowance	(46,229,259)	(43,487,600)
Net deferred tax assets	$ -	$ -

The Company had Federal net operating loss ("NOL") carryforwards of approximately $156.0 million and $146.4 million at December 31, 2018 and 2017, respectively, which began expiring in 2018. The Company also has certain Federal tax credit carryforwards that will expire through 2036. The timing and manner in which these net operating loss carryforwards and credits may be used in any year will be limited to the Company's ability to generate future earnings and also may be limited by certain provisions in the U.S. tax code. The Company has not identified any uncertain tax positions and did not recognize any adjustments for unrecognized tax benefits. The Company remains subject to examination for income tax returns dating back to 2015.

Impact of the Tax Cuts and Jobs Act of 2017

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act of 2017 (the "Tax Act") which included significant changes to the existing income tax laws for domestic corporations. Key features of the Tax Act effective in 2018 include:

- Reduction of the corporate tax rate from 35% to 21%
- Elimination of the alternative minimum tax
- Changes in the deductibility of certain aspects of executive compensation
- Changes in the deductibility of certain entertainment and recreation expenses
- Changes in incentive tax breaks for U.S production activities.

Because of the Company's existing Federal net operating loss carryforwards and current expectations as to the recovery of its net deferred tax assets, the Company believes that the Tax Act will not have a significant impact on its financial results and financial position, including on its liquidity, for the foreseeable future.

Note 8. Commitments and Contingencies

We currently operate one facility located in the United States and one facility located in China. Our corporate offices and primary research facilities are located in Germantown, Maryland, where we lease approximately 1,500 square feet. This lease provides for monthly payments of approximately $5,700 per month. Our prior lease expired on December 31, 2018. We are currently operating on a month-to-month lease as we negotiate an extension.

In 2015, we entered into a lease consisting of approximately 3,100 square feet of research space in San Diego, California. This lease provides for current monthly payments of approximately $12,000 and expires on August 31, 2019. In May 2017, we ceased-use of this property and recognized a loss of approximately $92,000 representing the present value of the expected remaining net payments due under such lease and the costs to vacate the property. In April 2018, we entered into an agreement for the sub-lease of the property and recognized an additional loss of approximately $50,000 reflecting the present value of the revised expected remaining net payments due. Total minimum rentals to be received under the sub-lease are $87,000 at December 31, 2018.

We also lease a research facility in People's Republic of China. This lease expires on March 31, 2019 with lease payments of approximately $3,800 per month.

Future minimum payments under all leases at December 31, 2018 are as follows:

Year	Amount
2019	115,000
2020	-
2021	-
2022	-
2023 and thereafter	-
Total minimum payments	$ 115,000

The Company recognized approximately $164,000 and $161,000, in rent expense for the years ended December 31, 2018 and 2017, respectively.

From time to time, we are parties to legal proceedings that we believe to be ordinary, routine litigation incidental to the business. We are currently not a party to any litigation or legal proceeding.

The Company is currently obligated under a written employment agreement with our Chief Scientific Officer ("CSO"). Pursuant to the terms of the agreement, our CSO receives annual salary of $500,000. The agreement also provides for the payment of severance in the event the CSO is terminated in certain circumstances and also provide for the acceleration of vesting with regard to outstanding equity awards.

Note 9. Related Party Receivable

On August 10, 2016, we entered into a reimbursement agreement with a former executive officer. Pursuant to the reimbursement agreement, the former officer agreed to repay the Company, over a six-year period, approximately $658,000 in expenses that the Company determined to have been improperly paid under the Company's prior expense reimbursement policies. In addition to this reimbursement agreement, the Company has implemented and is continuing to implement enhanced policies and procedures for travel expense reimbursements and disbursements.

The $658,000 non-interest-bearing receivable was recorded net of a $199,000 discount to reflect the net present value of the future cash payments. The discount is being amortized through interest income using the effective interest method. The principal amount of $458,000 remains outstanding at December 31, 2018 and is payable in $100,000 annual installments with a final payment due July 2022.

In March 2019, in conjunction with the employee's termination, we entered into a consulting agreement and release of claims agreement with the employee. As partial consideration for the release, we modified the reimbursement agreement to change the payment terms, extend the maturity and forgive a portion of the receivable.

Note 10. Subsequent Events

The Board of Directors approved a 1-for-20 reverse stock split of the Company's common stock effective July 17, 2019. Stockholders' equity and all references to share and per share amounts in the accompanying consolidated financial statements have been retroactively adjusted to reflect the 1-for-20 reverse stock split for all periods presented.

416,315 Shares of Common Stock
416,315 Series M Common Stock Purchase Warrants
416,315 Series N Common Stock Purchase Warrants
and
2,361,462 Series O Pre-Funded Common Stock Purchase Warrants
2,361,462 Series M Common Stock Purchase Warrants
2,361,462 Series N Common Stock Purchase Warrants

H.C. Wainwright & Co.

Prospectus

July 25, 2019