Neuralstem, Inc.
Form 424B5
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Registration No. 333-169847

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUPPLEMENT SUBJECT TO COMPLETION DATED August 3, 2012
(To the Prospectus dated October 14, 2010)

$[] of Shares of Common Stock

Neuralstem, Inc. is offering [*] shares of our common stock pursuant to this prospectus supplement and the accompanying prospectus.

Our common stock is listed on the NYSE MKT under the symbol “CUR”. On July 27, 2012, the last reported sale price of our common stock on the NYSE MKT was $ 0.965 per share.

Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below $75.0 million. The aggregate market value of our outstanding voting and nonvoting common equity as calculated pursuant to General Instruction I.B.6 is $49,369,775. During the 12 calendar months prior to and including the date of this prospectus supplement, we have offered an aggregate of $ 10,656,880 of securities pursuant

to General Instruction I.B.6. of Form S-3. For purposes of this calculation we have used the average of the bid and ask price on July 5, 2012, which was $0.99.

Our business and an investment in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 9 of this prospectus supplement and in the corresponding section of the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

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

(1) Does not include additional compensation payable to Aegis Capital Corp., the underwriter. See "Underwriting" for a description of compensation payable to the underwriter.

The underwriter may purchase up to an additional [*] shares from us at the public offering price, less the underwriting discount, within 45 days from the date of this prospectus supplement to cover over-allotments, if any.

The underwriter expects to deliver the shares against payment on or about [*], 2012.

Aegis Capital Corp

The date of this prospectus is [*], 2012

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ABOUT THIS PROSPECTUS SUPPLEMENT

On October 10, 2011, we filed with the SEC a registration statement on Form S-3 (File No. 333-169847) utilizing a shelf registration process relating to the securities described in this prospectus supplement, which registration statement was declared effective on October 14, 2011

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, gives more general information about securities we may offer from time to time, some of which does not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined together with all documents incorporated by reference. If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information contained in this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference into this prospectus supplement or the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement. You should rely only on the information contained in or incorporated by reference into this prospectus supplement or contained in or incorporated by reference into the accompanying prospectus to which we have referred you. We have not authorized anyone to provide you with information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in, or incorporated by reference into, this prospectus supplement and contained in, or incorporated by reference into, the accompanying prospectus is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of securities. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under the captions “Where You Can Find More Information” and “Incorporation of Documents by Reference” in this prospectus supplement and the accompanying prospectus.

We are offering to sell, and are seeking offers to buy, the shares only in jurisdictions where such offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the shares in certain jurisdictions or to certain persons within such jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about and observe any restrictions relating to the offering of the shares and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context otherwise requires, we use the terms “Neuralstem,” “we,” “us,” “the Company” and “our” in this prospectus supplement to refer to Neuralstem, Inc. and its subsidiary on a consolidated basis. All references in this prospectus supplement to our consolidated financial statements include, unless the context indicates otherwise, the related notes.

This prospectus supplement and the information incorporated herein by reference include patents which are protected under applicable intellectual property laws and are our property or the property of our subsidiary. For more information about the patents we own or patents we have filed please see the section titled “Where You Can Find More Information” and “Incorporation of Documents by Reference” in this prospectus supplement and the accompanying prospectus.

The industry and market data and other statistical information contained in the documents we incorporate by reference are based on management’s own estimates, independent publications, government publications, reports by market research firms or other published independent sources, and, in each case, are believed by management to be reasonable estimates. Although we believe these sources are reliable, we have not independently verified the information.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference into it contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words "believe," "expect," "may," "will," "could," "would," "anticipate," "intend," "estimate," "project," "plan," "continue," "
similar expressions, although not all forward-looking statements contain these identifying words. All statements contained in this prospectus supplement regarding our future strategy, plans and expectations regarding clinical trials, future regulatory approvals, our plans for the commercialization of our products, future operations, projected financial position, potential future revenues, projected costs, future prospects, and results that might be obtained by pursuing management's current plans and objectives are forward-looking statements. Forward-looking statements include, but are not necessarily limited to, those relating to:

- the success of our clinical trials, research and development activities, the development of a viable commercial product, and the speed with which regulatory authorizations and product launches may be achieved;
- whether or not a market for our product develops, and, if a market develops, the rate at which it develops;
- our ability to successfully sell or license our products if a market develops;
- our ability to attract and retain qualified personnel to implement our business plan and corporate growth strategies;
- our ability to develop sales, marketing, and distribution capabilities;
- our ability to obtain reimbursement from third party payors for our proposed products if they are developed;
- the accuracy of our estimates and projections;
- our ability to secure additional financing to fund our short-term and long-term financial needs;
- changes in our business plan and corporate strategies; and
- other risks and uncertainties discussed in greater detail in the section captioned "Risk Factors."

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus. New risks and uncertainties arise from time to time, and it is impossible for us to predict these matters or how they may affect us. Over time, our actual results, performance or achievements will likely differ from the anticipated results, performance or achievements that are expressed or implied by our forward-looking statements, and such differences might be significant and materially adverse to our investors. We have no duty to, and do not intend to, update or revise the forward-looking statements in this prospectus after the date of this prospectus except to the extent required by the federal securities laws. You should consider all risks and uncertainties disclosed in our filings with the Securities and Exchange Commission, or the SEC, described in the sections of this prospectus supplement entitled “Where You Can Find More Information” and “Incorporation of Documents by Reference” and the sections of the accompanying prospectus entitled “Incorporation of Certain Information by Reference” and “Where You Can Find Additional Information,” all of which are accessible on the SEC’s website at www.sec.gov.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the "Risk Factors" section contained in this prospectus supplement and our consolidated financial statements and the related notes and the other documents incorporated by reference into this prospectus supplement and in the accompanying prospectus.

Business Overview

We are focused on the development and commercialization of treatments based on human neuronal stem cells and the development and commercialization of treatments using small molecule compounds. We are headquartered in Rockville, Maryland

We have developed and maintain a portfolio of patents and patent applications that form the proprietary base for our research and development efforts in the area of neural stem cell research. We own or exclusively license twenty-seven (27) U.S. or foreign issued patents and forty-four (44) U.S. and foreign patent applications in the field of regenerative medicine, related to our stem cell technologies as well as our small molecule compounds.

We believe our technology base, in combination with our know-how, and collaborative projects with major research institutions, provide a competitive advantage and will facilitate the development and commercialization of products for use in the treatment of a wide array of neurodegenerative conditions and in regenerative repair of acute disease.

Regenerative medicine is a young and emerging field. Regenerative medicine is the process of creating living, functional tissues to repair or replace tissue or organ function lost due to age, disease, damage, or congenital defects. There can be no assurances that our intellectual property portfolio will ultimately produce viable commercialized products and processes. Even if we are able to produce a commercially viable product, there are strong competitors in this field and our products may not be able to successfully compete against them.

All of our research efforts to date are at the pre-clinical or clinical stage of development. We are focused on leveraging our key assets, including our intellectual property, our scientific team and our facilities, to advance our technologies. In addition, we are pursuing strategic collaborations with members of academia.

Clinical Trials

Stem Cells

During the first half of 2012, we were primarily engaged in conducting the Phase I clinical trials for our proposed treatment of Amyotrophic Lateral Sclerosis (“ALS” or “Lou Gehrig’s disease”) at Emory University in Atlanta Georgia. The purpose of the Phase I clinical trial is to evaluate the safety and transplantation technique of our proposed treatment. In May of 2012, the United States Food and Drug Administration or FDA approved an amendment to our initial trial protocol to allow for the return of three patients from earlier cohorts to receive additional treatment of which the first returning patient was treated in June of 2012 and the second in July of 2012. To date, we have treated seventeen (17) patients of which twelve (12) were treated by transplantation in the lumbar (lower back) region, three (3) in the cervical (upper back) region, and two (2) in both the lumbar and cervical regions under our amended protocol. We anticipate treating a total of eighteen (18) patients in this Phase I clinical trial of which three (3) will receive transplantations in both the lumbar and cervical regions of the back. Although initial data from the Phase I clinical trial for our treatment of ALS appears promising, the outcome of the trial is uncertain and this trial or future trials may ultimately be unsuccessful.

On August 24, 2010, we filed our second Investigational New Drug Application or IND with the FDA for our proposed Phase I clinical trials to treat chronic spinal cord injury. In October of 2010, we were notified that our IND for spinal cord injury had been placed on clinical hold. At the time, the FDA provided us with specific comments, questions and recommendations for modifications to our trial protocol as contained in our IND application. We expect to revisit this IND with the FDA with a review of the long term human safety data from our ALS trial as well as additional long term animal safety data that was generated for the next phase of the ALS trial. We anticipate the study, if approved and commenced, will be a multi-site study in the United States. It is still too early to predict when or if the trial will be approved to move forward.

Pharmaceutical Compounds

In February of 2011, we commenced Phase I clinical trials (Phase Ia portion) of our drug compound, NSI-189, at California Clinical Trials, LLC, in Glendale California. NSI-189 is being developed for the treatment of major depressive disorder and other psychiatric indications. NSI-189 is the lead compound in our neurogenerative small molecule drug platform. The purpose of the Phase Ia portion of the clinical trial was to evaluate the safety of the drug in healthy volunteers. The Phase Ia portion tested a single oral administration of NSI-189 in healthy volunteers. In October of 2011, we completed the Phase Ia portion of the trial. In December of 2011, we received approval from the FDA to commence the Phase Ib portion of the trial. The purpose of the Phase Ib portion of the clinical trial is to determine the safety of the drug at several dosings in actual Major Depressive Disorder or MDD patients. The Phase Ib portion consists of patients with MDD receiving daily doses for 28 consecutive days. In June of 2012, we dosed our first patient in the Phase Ib portion of the trial. We anticipate a total of 24 patients will be dosed in the Phase Ib portion. It is still too early in the trials to make any determination as to its level of success, if any.

Technology

Stem Cells

Our technology enables the isolation and large-scale expansion of 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 all types. Our two issued core U.S. patents entitled: (i) Isolation, Propagation, and Directed Differentiation of Stem Cells from Embryonic and Adult Central Nervous System of Mammals; and (ii) In Vitro Generation of Differentiated Neurons from Cultures of Mammalian Multipotential CNS Stem Cell contain claims which cover the process of deriving the cells as well as the cells created from this process.

We believe that our stem cell technology will assist the body in producing new cells to replace malfunctioning or dead cells 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 replacing damaged or 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 or CNS, including: Alzheimer's disease, Parkinson's disease, Multiple Sclerosis, ALS, depression, and injuries to the spinal cord.

To date we have focused our research efforts on applications involving spinal cord stem cells. We believe we have established “proof of principle” for two important spinal cord applications: ALS, or Lou Gehrig’s disease, and Ischemic Spastic Paraplegia (a painful form of spasticity that may arise as a complication of surgery to repair aortic aneurysms).

Of these applications, we have commenced Phase I trials with regard to ALS. We believe that, if successfully developed, stem cell therapeutics have the potential to provide a broad therapeutic approach comparable to traditional pharmaceuticals and genetically engineered biologics.

We intend to treat both chronic and acute spinal cord injury with the same spinal cord stem cells, utilizing the same injection devices we are using for ALS. Therefore, we add to our knowledge about the surgical route of entry for both the ALS patients and the spinal cord injury patients with each patient we treat in the ALS trial.

Pharmaceutical Compounds

We have developed and patented a series of small molecule compounds (low molecular weight organic compounds which can efficiently cross the blood/brain barrier). We believe that these small molecule compounds will stimulate the growth of new neurons in the hippocampus and provide a treatment for depression, and possibly other cognitive impacting diseases. In July of 2009, the U.S. Patent and Trademark Office issued the patent covered by patent application 12/049,922, entitled “Use of Fused Nicotinamides to Promote Neurogenesis,” which claims four chemical entities and any pharmaceutical composition included in them. In October of 2011 we announced that we had received patent allowance for U.S. Patent 8,030,492, entitled: “Compositions to Effect Neuronal Growth.” The claims covered by the patent include both structure and method claims for inducing neurogenesis and the growth of new neurons, both in-vitro and in-vivo.

NSI-189 is the first in a class of compounds that we plan to develop into orally administered drugs for major depressive disorder and other psychiatric disorders which are based on our small molecule technologies. In mice, Company research indicated that NSI-189 both stimulates neurogenesis of the hippocampus and increases its volume. Additionally, Company research indicated that NSI-189 stimulates neurogenesis of human hippocampus-derived neural stem cells in vitro. Based on this research, we believe NSI-189 may reverse the human hippocampal atrophy seen in major depression and other disorders.

Our small molecule platform results from discoveries made through our ability to generate stable human neural stem cell lines suitable for screening large chemical libraries. Our small molecule platform complements our cell therapy platform, in which brain and spinal cord stem cells are transplanted directly into diseased areas to repair and/or replace diseased or dead cells.

Department of Defense — Loma Linda Subcontract Agreement

During 2011, we were selected as the primary subcontractor for a U.S. Department of Defense or DOD contract, awarded to Loma Linda University, to develop human neural stem cell technology for the treatment of cancerous brain tumors. The research contract, entitled "Research to Treat Cancerous Brain Tumors with Neural Stem Cells,"

will be carried out in collaboration with Principal Investigator John Zhang, MD, PhD, Professor of Neurosurgery, Loma Linda University, in Loma Linda, CA. The DOD has three one-year options to continue the program after the first year, based upon milestones. The goal of the program is to have a therapeutic product for the treatment of cancerous brain tumors ready to submit to the FDA by the end of the fourth year (2015). We began work on the project during August of 2011 and completed the first year in June of 2012. Due to uncertainties with the DOD budget, there can be no assurances that this program will continue beyond the initial year completed.

Research

We have devoted substantial resources to our research programs in order to isolate and develop a series of neural stem cell banks that we believe can serve as a basis for our therapeutic products. Our efforts to date have been directed at methods to identify, isolate and culture large varieties of stem cells of the human nervous system, and to develop therapies utilizing these stem cells. This research is conducted internally, through the use of third party laboratories and consulting companies under our direct supervision, and through collaboration with academic institutes.

Operating Strategy

We generally employ an outsourcing strategy where we outsource our Good Laboratory Practices or GLP preclinical development activities and Good Manufacturing Practices or GMP manufacturing and clinical development activities to contract research organizations or CRO and contract manufacturing organizations or CMO as well as all non-critical corporate functions. Manufacturing is also outsourced to organizations with approved facilities and manufacturing practices. This outsource model allows us to better manage cash on hand and minimize non-vital expenditures. It also allows for us to operate with relatively fewer employees and lower fixed costs than that required by our competitors.

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. We outsource all the manufacturing and storage of our stem cells and pharmaceuticals compound to be used in pre-clinical works, and which are accordingly subject to higher FDA requirements, to Charles River Laboratories, Inc., of Wilmington, Massachusetts (stem cells) and Albany Molecular Resources, Inc. (“AMRI”) (small molecule). Both the Charles River and AMRI facilities have the capacity to be used for manufacturing under the FDA determined GMP standards in quantities sufficient for our current and anticipated pre-trial and clinical trial needs. We have no quantity or volume commitment with either Charles River Laboratories or AMRI and our cells and pharmaceutical compounds are ordered and manufactured on an as needed basis.

Employees

As of June 30, 2012, we had 16 full-time employees and one full-time independent contractor. Of these full-time employees and contractor, 12 work on research and development and five in administration. We also use the services of numerous outside consultants in business and scientific matters.

Our Corporate Information

We were incorporated in Delaware. Our principal executive offices are located at 9700 Great Seneca Highway, Rockville, Maryland 20850, 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.

Recent Developments

- On February 29, 2012, the second patient to receive stem cells in the cervical (upper back) region of the spine was dosed.

- On March 28, 2012 safety results from the first 12 patients in our Phase I clinical trial for ALS was reported online in the peer-reviewed publication, STEM CELLS, on March 13, 2012.

- On May 8, 2012 the FDA has approved the return of three patients from earlier cohorts in our ongoing Phase I safety trial to treat ALS with our spinal cord stem cells (HSSC's).

- On June 5, 2012, we announced that the Institutional Review Board at Emory University approved the amendment to the ongoing Phase I trial evaluating the Company's spinal cord stem cells in the treatment of ALS. The amended protocol was approved earlier this year by the FDA.

- In June of 2012 we announced that the first patient to receive stem cell transplantation in both regions of the spinal cord has been treated in the ongoing Phase I trial of our spinal cord neural stem cells in ALS.

- On June 25, 2012 we announced that the first patients were dosed in the Phase Ib portion of our ongoing trial to test the safety of NSI-189 in the treatment of MDD.

- On July 25, 2012 we amended the employment agreements of I. Richard Garr and Dr. Karl Johe to extend the termination dates of both of their employment agreements to October 31, 2017. We also amended the employment agreement of Thomas Hazel to extend the termination date of his employment to August 11, 2017. In addition, our Compensation Committee granted Dr. Karl Johe 5,000,000 common stock purchase options at a price of $0.92 and a term of 10 years. The options vest at a rate of 500,000 shares every six months. Additionally, vesting of the last 2,000,000 options is also subject to shareholder approval to grant the options on a stand-alone basis, or to amend our 2010 Equity Compensation Plan to increase the number of shares available by at least 2,000,000 common shares, or to authorize a new equity compensation plan covering at least 2,000,000 common shares. The final 2,500,000 options are subject to reduction if exercised at a price greater than $5.00.

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The Offering

Securities offered by us	shares of common stock
Common stock to be outstanding after this offering	shares of common stock
Over-allotment option	shares of common stock
Use of proceeds	We intend to use the net proceeds from this offering for general corporate purposes, including working capital, product development and capital expenditures. See “Use of Proceeds.” See “Use of Proceeds” on page 19.
Risk factors	See “Risk Factors” beginning on page 9 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, for a discussion of factors you should carefully consider before investing in our securities.
NYSE MKT trading symbol	CUR

The number of shares of common stock to be outstanding after this offering is based on 54,095,105 shares outstanding on June 30, 2012 and excludes as of that date:

- options representing the right to purchase a total of 11,794,129 shares of common stock at a weighted average exercise price of $2.25 per share; and
- warrants representing the right to purchase a total of 19,390,176 shares of common stock at a weighted-average exercise price of $2.18 per share; and
- restricted stock units representing the right to receive 371,491 shares of common stock.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their over-allotment option.

RISK FACTORS

You should carefully consider the risks described below before making an investment decision. The risks described below are not the only ones we face. Additional risks we are not presently aware of or that we currently believe are immaterial may also impair our business operations. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained or incorporated by reference into this prospectus supplement and the accompanying prospectus, including our financial statements and related notes.

Risks Related to the Offering

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 150,000,000 shares of common stock and 7,000,000 "blank check" shares of preferred stock. Shares of our blank check preferred stock provide the board of directors broad authority to determine voting, dividend, conversion, and other rights. As of June 30, 2012 we have issued and outstanding 54,095,105 shares of common stock and we have 36,121,210 shares of common stock reserved for future grants under our equity compensation plans and for issuances upon the exercise of currently outstanding options, warrants and convertible securities. As of June 30, 2012, we had no shares of preferred stock issued and outstanding. Accordingly, we are entitled to issue up to 59,783,685 additional shares of common stock and 7,000,000 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.

Our management will have broad discretion over the use of proceeds from this offering and may not use the proceeds effectively.

Our management will have broad discretion as to the application of the net proceeds from this offering and could spend the proceeds in a variety of ways that may ultimately fail to improve our operating results or enhance the value

of our common stock. Our failure to apply these funds effectively could have a negative effect on our business and cause the price of our common stock to decline.

Our publicly filed reports are subject to review by the SEC, and any significant changes or amendments required as a result of any such review may result in material liability to us and may have a material adverse impact on the trading price of our common stock.

The reports of publicly traded companies are subject to review by the SEC from time to time for the purpose of assisting companies in complying with applicable disclosure requirements, and the SEC is required to undertake a comprehensive review of a company's reports at least once every three years under the Sarbanes-Oxley Act of 2002. SEC reviews may be initiated at any time. We could be required to modify, amend or reformulate information contained in prior filings as a result of an SEC review. Any modification, amendment or reformulation of information contained in such reports could be significant and result in material liability to us and have a material adverse impact on the trading price of our common stock.

If we cannot continue to satisfy the NYSE MKT listing maintenance requirements and other rules, our securities may be delisted, which could negatively impact the price of our securities.

Although our common stock is listed on the NYSE MKT, we may be unable to continue to satisfy the listing maintenance requirements and rules. If we are unable to satisfy the criteria for maintaining our listing on the NYSE MKT, our securities could be subject to delisting. To qualify for continued listing on the NYSE MKT, we must continue to meet specific criteria including conditions with respect to our shareholders equity as well as minimum stock price. There can be no assurance that we will continue to meet this criteria. If we fail to meet the listing requirements and the NYSE MKT makes the determination that our common stock is no longer eligible for listing and is delisted, trading in our common stock may be conducted on the over-the-counter bulletin board or on the OTC Markets. In such event, broker-dealers may be less willing or able to sell and/or make a market in our common stock. Moreover, such markets have historically been less liquid than the NYSE MKT. Accordingly, an investor would will find it more difficult to dispose of his shares or to obtain accurate quotations for the price which could result in a negative impact on the price of our common shares.

Risks Related to Government Regulation and Approval of our Product Candidates

If our clinical trials fail to demonstrate to the FDA that any of our product candidates are safe and effective 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 New Drug Application, 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 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 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 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.

In addition, in the course of its review of an NDA or 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 an NDA or regulatory application submitted by us and finds a significant deficiency in any of these or other areas, the FDA or other regulatory authorities could delay or not approve our NDA or 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.

We are subject to extensive and rigorous governmental regulation, including the requirement of FDA or other regulatory approval before our product candidates may be lawfully marketed.

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, labeling, storage, record keeping, quality systems, advertising, promotion, sale and distribution of therapeutic products. Failure to comply with applicable requirements could result in, among other things, one or more of the following actions: notices of violation, untitled letters, warning letters, fines and other monetary penalties, unanticipated expenditures, delays in approval or refusal to approve a product candidate; product recall or seizure; interruption of manufacturing or clinical trials; operating restrictions; injunctions; 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 the subjects are being exposed to an unacceptable health risk. Our product candidates cannot be lawfully marketed in the United States without FDA approval. Any failure to receive the marketing approvals necessary to commercialize our product candidates could harm our business.

The regulatory review and approval process of governmental authorities, which includes the need to conduct nonclinical studies and clinical trials of each product candidate, is lengthy, expensive and uncertain, and regulatory standards may change during the development of a particular product candidate. We are not permitted to market our product candidates in the United States or other countries until we have received requisite regulatory approvals. For example, securing FDA approval requires the submission of an NDA to the FDA. The approval application must include extensive nonclinical and clinical data and supporting information to establish the product candidate’s safety and effectiveness for each indication. The approval application must also include significant information regarding the chemistry, manufacturing and controls for the product. The FDA review process typically takes significant time to complete and approval is never guaranteed. If a product is approved, the FDA may limit the indications for which the product may be marketed, require extensive warnings on the product labeling, impose restricted distribution programs, require expedited reporting of certain adverse events, or require costly ongoing requirements for post-marketing clinical studies and surveillance or other risk management measures to monitor the safety or efficacy of the product. Markets outside of the United States also have requirements for approval of drug candidates with which we must comply prior to marketing. Obtaining regulatory approval for marketing of a product candidate in one country does not ensure we will be able to obtain regulatory approval in other countries, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in other countries. Also, any regulatory approval of any of our product candidates, once obtained, may be withdrawn.

In addition, we, our suppliers, our operations, our facilities, and our contract manufacturers, our contract research organizations, and our contract testing laboratories are required to comply with extensive FDA requirements both before and after approval of our products. For example, we are required to report certain adverse reactions and production problems, if any, to the FDA, and to comply with certain requirements concerning advertising and promotion for our product candidates and our products. Also, quality control and manufacturing procedures must continue to conform to current Good Manufacturing Practices, or cGMP, regulations after approval, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production, and quality control. In addition, discovery of safety issues may result in changes in labeling or restrictions on a product manufacturer or NDA holder, including removal of the product from the market.

The results of pre-clinical studies and early-stage clinical trials, such as the results from our recent Phase I ALS trial, may not be predictive of the results of later-stage clinical trials.

A number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience than us, have suffered significant setbacks in Phase II and Phase III clinical trials, despite positive results from earlier-stage trials. The principal investigator of the Phase I safety trial of our human spinal cord stem cells (HSSC's) in amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), recently presented primary and secondary endpoint data on the first 12 patients in the study. The study was designed to assess the safety of intraspinal transplantation in ALS patients and was not intended to demonstrate efficacy. While no adverse events related to the surgical procedure or our neural stem cells were reported, the small sample size, limited time frame and preliminary nature of the study make it difficult to draw any conclusions from the results of the study. No assurance can be given that the surgical procedure or our neural stem cells will be deemed safe by the FDA or that efficacy in the treatment of ALS will be demonstrated in any future studies. Failure to demonstrate safety and efficacy results acceptable to the FDA in later stage trials could impair our development prospects and even prevent regulatory approval of our neuronal stem cells, NSI-189 or other future products.

Risks Relating to Our Stage of Development

We have a history of losses.

Since inception in 1996 and through March 31, 2012, we have raised $105,053,977 of capital and recorded accumulated losses totaling $100,925,439. On March 31, 2012, we had a working capital surplus of $3,471,057 and stockholders' equity of $ 4,534,312. Our net losses for the three most recent fiscal years have been $12,518,527, $18,387,300 and $10,364,363 for 2011, 2010 and 2009, respectively. In August of 2011, we were selected as the primary subcontractor under a DOD contract to develop its human neural stem cell technology for the treatment of cancerous brain tumors. We have recognized revenue related to this contract of $156,250 and $390,625 for three months ended March 31, 2012 and the year ended December 31, 2011, respectively. We had no revenue from the sales

of our products during 2011, and 2010. For the three months ended March 31, 2012, we had a net loss of $2,452,781.

Our ability to generate revenues and achieve profitability will depend upon our ability to complete the development of our proposed products, obtain the required regulatory approvals, manufacture, and market and sell our proposed products. 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 financed our operations through the sale of our securities, the exercise of investor warrants, and to a lesser degree from grants and research contracts. As of March 31, 2012, we had cash and cash equivalents on hand of $5,144,136. Currently our monthly cash burn from operations is approximately $700,000. We anticipate that our available cash, expected income and expected proceeds from sales of our securities will be sufficient to finance our current activities at least through March 31, 2013, although certain activities and related personnel may need to be reduced. We cannot assure you that we will be able to secure additional financing or enter into licensing agreements. Our inability to accomplish either licensing or additional financing will materially impact our ability to fund our current activities which will result in our being required to substantially reduce our activities.

We have expended and expect to continue to expend substantial cash in the research, development, clinical and pre-clinical testing of our stem cell technologies with the goal of ultimately obtaining FDA approval to market our proposed 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 operations and planned growth, develop or enhance our technologies, take advantage of business opportunities or respond to our competitive market pressures. If we exhaust our cash reserves and are unable to realize adequate additional financing, we may be unable to meet operating 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

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

At present our ability to progress as a company is significantly dependent on our two product candidates currently in Phase I clinical trials. Any clinical, regulatory or other development that significantly delays or prevents us from completing any of our trials, any material safety issue or adverse side effect to any study participant in these trials, or the failure of these trials to show the results expected would likely depress our stock price significantly and could prevent us from raising the additional capital we will need to further develop our technologies. Moreover, any material adverse occurrence in our clinical trials could substantially impair our ability to initiate clinical trials to test our product candidates in other potential indications. This, in turn, could adversely impact our ability to raise additional capital and pursue our planned research and development efforts.

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

We have concentrated the majority of our research on 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 and may have limited human applications. We cannot guarantee that we will be able to develop our technologies or that such development will result in products with any commercial utility or value. We anticipate that the commercial sale of such products and royalty/licensing fees related to the technology, will be our primary sources of revenues. If we are unable to develop our technologies, we may never realize any revenue.

Our product development programs are based on novel technologies and are inherently risky.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of therapies in the field of regenerative medicine creates significant challenges in regard to product development and optimization, manufacturing, government regulation, third party reimbursement, and market acceptance. For example, the pathway to regulatory approval for cell-based therapies, including our product candidates, may be more complex and lengthy than the pathway for conventional drugs. These challenges may prevent us from developing and commercializing products on a timely or profitable basis or at all.

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

Given the uncertainty of our technologies and the need for government regulatory approval, we cannot possibly predict when or 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.

We are unable to accurately predict time frames for approvals relating to government contracts or time frames for our products to receive regulatory approvals.

In 2011 we were selected as a subcontractor for a U.S. department of Defense or DOD contract awarded to Loma Linda University to develop human neural stem cell technology for treatment of cancerous brain tumors. We currently have completed our initial year under this contract. The transaction was cash neutral and did not offset any of our operating expenses. We completed our work under the contract in June of 2012. In the event the extension option is not exercised by the DOD, we will need to either secure additional financing, or curtail the research with regard to stem cell treatment of cancerous brain tumors. Given the uncertainty of budget allocation for the DOD and other uncontrollable factors, we cannot predict whether the DOD will exercise its option for future years under this contract.

Our inability to manufacture and store our stem cells in-house that are used in our products could adversely impact our business.

We currently outsource the manufacturing of our stem cells to third party contractors and as such are unable to adequately control the manufacturing process and the safe storage of such stem cells. 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. Our business would suffer in the event that there are delays in locating suitable third parties or if no suitable third parties are found.

Our inability to complete pre-clinical and clinical testing and trials will impair our viability.

We are currently undertaking two sponsored Phase I clinical trials. Although we have commenced the trials, the outcome of the trials is uncertain, and if we are unable to satisfactorily complete such trials, or if such trials yield unsatisfactory results, we will be unable to commercialize our proposed products. No assurances can be given that the clinical trials will be completed or result in a successful outcome. If regulatory authorities do not approve our products or if we fail to maintain regulatory compliance, we would be unable to commercialize our therapeutic products, and our business and results of operations would be materially harmed.

Our proposed products may not have favorable results in clinical trials or receive regulatory approval.

Positive results from pre-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, we will be required to demonstrate through clinical trials that the product candidates are safe and effective for use in a diverse 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 in any clinical trial, then we would experience potentially significant delays in, or be required to abandon, development of that product candidate. If we delay or abandon our development efforts of any of our product candidates, then we may not be able to generate revenues.

There are no assurances that we will be able to submit or obtain FDA approval of a biologics license application in order to market and sell our products.

There can be no assurance that even if the clinical trial of any potential product candidate is successfully initiated and completed, that we will be able to submit a Biologics License Application ("BLA") or New Drug Application ("NDA") to the FDA or that any BLA or NDA we submit will be approved in a timely manner, if at all. If we are unable to submit a BLA and NDA with respect to any future product candidate, or if such application is not approved by the FDA, we will be unable to commercialize that product. The FDA can and does reject BLAs and NDAs and may require additional clinical trials, even when product candidates performed well or achieved favorable results in clinical trials. If we fail to commercialize our product candidate, we may be unable to generate sufficient revenues to attain profitability and our reputation in the industry and in the investment community would likely be damaged, each of which would cause our stock price to decrease.

The manufacturing of stem cell-based therapeutic products is novel and dependent upon specialized key materials.

The manufacturing of stem cell-based therapeutic products is a complicated and difficult process, dependent upon substantial know-how and subject to the need for continual process improvements. We depend almost exclusively on third party manufacturers to supply our cells. In addition, our suppliers' ability to scale-up manufacturing to satisfy the various requirements of our planned clinical trials is uncertain. Manufacturing irregularities or lapses in quality control could have a material adverse effect on our reputation and business, which could cause a significant loss of stockholder value. 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. At present, some of our material requirements are single sourced, and the loss of one or more of these sources may adversely affect our business

Our business is subject to ethical and social concerns.

The use of stem cells for research and therapy has been the subject of debate regarding ethical, legal and social issues. Negative public attitudes toward stem cell therapy could result in greater governmental regulation of stem cell therapies, which could harm our business. For example, concerns regarding such possible regulation could impact our ability to attract collaborators and investors. Existing and potential U.S. government regulation of human tissue may lead researchers to leave the field of stem cell research or the country altogether, in order to assure that their careers will not be impeded by restrictions on their work. Similarly, these factors may induce graduate students to choose other fields less vulnerable to changes in regulatory oversight, thus exacerbating the risk that we may not be able to attract and retain the scientific personnel we need in the face of competition among pharmaceutical, biotechnology and health care companies, universities and research institutions for what may become a shrinking class of qualified individuals

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 differs 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. By way of example, in May of 2008, we filed a complaint against StemCells Inc., alleging that U.S. Patent No. 7,361,505 (the "'505 patent"), allegedly exclusively licensed to StemCells, Inc., is invalid, not infringed and unenforceable. On the same day, StemCells, Inc. filed a complaint alleging that we had infringed, contributed to the infringement of, and or induced the infringement of two patents owned by or exclusively licensed to StemCells relating to stem cell culture compositions. Please refer to the section of this prospectus supplement entitled "*Legal Proceedings*" for a further discussion of such litigation.

We 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 be infringed 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.

We may not be able to obtain third party patient reimbursement or favorable product pricing.

Our ability to successfully commercialize our proposed products in the human therapeutic field depends to a significant degree on patient reimbursement of 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. 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 health care 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.

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 stem cell based products. Accordingly, if developed, we may not be able to charge a high enough price for us to make a profit from the sale of our cell therapy products.

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

Our proposed products, 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 drugs and therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance will depend on a number of factors, including:

- the clinical efficacy and safety of our proposed products;
- the superiority of our products to alternatives currently on the market;
- the potential advantages of our products over alternative treatment methods; and
- the reimbursement policies of government and third party payors.

If the health care community does not accept our products for any reason, our business would be materially harmed.

We depend on key employees for our continued operations and future success.

We are highly dependent on our chief executive officer, chief scientific officer 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 these key 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 and 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 continue to attract and retain the qualified personnel necessary for the development our business.

The employment contracts of certain key employees contain significant anti-termination provisions which could make changes in management difficult or expensive.

We have entered into employment agreements with Messrs. Garr and Johe which expire on October 31, 2017. In the event either individual is terminated prior to the full term of their respective contracts, for any reason other than a voluntary resignation, all compensation due to such employee under the terms of the respective agreement shall become due and payable immediately. These provisions will make the replacement of either of these employees very costly and could cause difficulty in effecting a change in control. Termination prior to the full term of these contracts would cost us as much as $1,260,000 per contract and the immediate vesting of all outstanding options and/or warrants held by Messrs. Garr and Johe.

Our competition has significantly greater experience and financial resources.

The biotechnology industry is characterized by intense competition. We will 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. Although not necessarily direct competitors, in the event we develop a commercially feasible product, we will compete against companies such as Genzyme Corporation, Aastrom Biosciences, Inc. and Viacell, Inc., as well as others, who may have substantially greater resources and experience in our fields.

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

Our strategy for the development, clinical and preclinical 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 would be required to expend considerable 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 cell-based therapeutic products exposes us to product liability claims.

Product liability claims against us could result in substantial litigation costs and damage awards against us. 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 liability.

We currently rely upon third party FDA-approved manufacturers for our stem cells.

We currently have no internal commercial manufacturing capability, and rely extensively on FDA-approved licensees, strategic partners or third party contract manufacturers or suppliers. Should we be forced to manufacture our proposed products, we cannot give you any assurance that we will be able to develop an internal manufacturing capability or procure alternative third party suppliers. Moreover, we cannot give you any assurance that any contract manufacturers or suppliers we procure will be able to supply our product in a timely or cost effective manner or in accordance with applicable regulatory requirements or our specifications.

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

We currently have no internal commercial manufacturing capability, and rely exclusively on FDA-approved licensees, strategic partners or third party contract manufacturers or suppliers for the foreseeable future. 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. We currently engage Charles River Laboratories, Inc., of Wilmington, Massachusetts (stem cells) and Albany Molecular Resources, Inc. ("AMRI") (small molecule). In the event we seek third party suppliers or alternative 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, we cannot give you any assurance that any contract manufacturers or suppliers 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 at terms reasonable to us. Failure to secure such third party manufacturers or supplies 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 product candidates.

Although we design and manage our current preclinical studies, 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 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 or fail to meet regulatory obligations or expected deadlines;
- we replace a third party; 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 and Government Regulation

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, even though issued, our current and potential future patents will survive such challenges. For example, in 2005 our neural stem cell technology was challenged in the USPTO. Although we prevailed in this particular matter upon re-examination by the patent office, 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. At present, there is litigation with StemCells, Inc., which is further described in the section of this prospectus supplement entitled "*Legal Proceedings*."

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

We anticipate conducting research in countries outside of the U.S., including through our subsidiary in the People's Republic of China. A number 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.

Our products may not receive regulatory approval.

The FDA and comparable government agencies in foreign countries impose substantial regulations on the manufacturing and marketing of pharmaceutical and biological products through lengthy and detailed laboratory, pre-clinical and clinical testing procedures, sampling activities and other costly and time-consuming procedures. Satisfaction of these regulations typically takes several years or more and vary substantially based upon the type, complexity and novelty of the proposed product. We are currently undertaking two sponsored Phase I clinical trials. 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 (BLA or NDA) for FDA approval or whether any such product license application will be granted on a timely basis, if at all. Moreover, we cannot assure you that FDA approvals for any products developed by us 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 technologies 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 the development and manufacture of the cells and cell lines required for our preclinical and clinical products could substantially delay or prevent us from producing the cells needed to initiate 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.

We base our research and development on the use of human 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 requirements both before and after approval, if any, 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 permitted 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.

Risks Relating to Our Common Stock

Our common shares are "thinly" traded.

Our common shares have historically been "thinly" traded, meaning that the number of persons interested in purchasing our common shares at or near the asking price at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the facts that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community. Even if we came to the attention of such persons, they tend to be risk-adverse and would be reluctant to follow an unproven development stage company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without a material reduction in share price. We cannot give you any assurance that a broader or more active trading market for our common shares will develop or be sustained, or that current trading levels will be sustained. Due to these conditions, you may not be able to sell your shares if you need money or otherwise desire to liquidate your investment.

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. First, there is limited liquidity in the market for our common shares. As a consequence of this lack of liquidity, the trading of relatively small quantities of shares by our

shareholders may disproportionately influence the price of those shares in either direction. The price for our shares could, for example, decline precipitously in the event that a large number of our common shares are sold on the market without commensurate demand. Secondly, we are a speculative or "risky" investment due to our limited operating history, lack of significant revenues to date and the uncertainty of future market acceptance for our products if successfully developed. 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; government regulations; announcements of significant acquisitions, strategic partnerships or joint ventures; our capital commitments; 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.

We face risks related to compliance with corporate governance laws and financial reporting standard.

The Sarbanes-Oxley Act of 2002, as well as related rules and regulations implemented by the SEC and the Public Company Accounting Oversight Board, require changes in the corporate governance practices and financial reporting standards for public companies. These laws, rules and regulations, including compliance with Section 404 of the Sarbanes-Oxley Act of 2002 relating to internal control over financial reporting ("Section 404"), have materially increased the Company's legal and financial compliance costs and have and will continue to make some activities more time-consuming, burdensome and expensive. Any failure to comply with the requirements of the Sarbanes-Oxley Act of 2002, our ability to remediate any material weaknesses that we may identify during our compliance program, or difficulties encountered in their implementation, could harm our operating results, cause us to fail to meet our reporting obligations or result in material misstatements in our financial statements. Any such failure could also adversely affect the results of the periodic management evaluations of our internal controls and, in the case of a failure to remediate any material weaknesses that we may identify, would adversely affect the annual auditor attestation reports regarding the effectiveness of our internal control over financial reporting that are required under Section 404 of the Sarbanes-Oxley Act. Inadequate internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

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 NYSE AMEX. 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, although we are currently unable to estimate these costs with any degree of certainty. 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 cash dividends nor do we anticipate paying cash dividends in the foreseeable future. Accordingly, any return on your investment will be as a result of stock appreciation.

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 or 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 or our business. We currently have limited research coverage by securities and industry analysts. In the event any of the analysts who cover us downgrades our securities, the price of our securities would likely decline. If one or more of these analysts ceases to cover us or fails to publish regular reports on us, interest in the purchase of our securities could decrease, which could cause the price of our common stock and other securities and their trading volume to decline.

Our corporate documents and Delaware law contain provisions that could make it difficult for us to be acquired in a transaction that might be beneficial to our stockholders.

Our board of directors has the authority to issue shares of preferred stock and to fix the rights, preferences, privileges, and restrictions of these shares without stockholder approval. Additionally, our Bylaws provide for a staggered board. These provisions in our corporate documents, along with certain provisions under Delaware law, may make it more difficult for a third party to acquire us or discourage a third party from attempting to acquire us, even if the acquisition might be beneficial to our stockholders.

USE OF PROCEEDS

We estimate that the net proceeds we will receive from this offering will be approximately $[*] million (or approximately $[*] million if the underwriter exercises its over-allotment option in full from us) after deducting estimated underwriter fees and estimated offering expenses that we must pay and assuming we sell the maximum number of shares offered hereby.

We intend to use the net proceeds from this offering for general corporate purposes, including general working capital, capital expenditures, research and development expenditures, clinical trial expenditures, acquisitions of new technologies or businesses and investments.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds.

Pending use of the proceeds as described above or otherwise, we intend to invest the net proceeds in money market funds and/or short-term interest-bearing, investment-grade securities.

DETERMINATION OF OFFERING PRICE

We established the price following negotiations with the underwriter and with reference to the prevailing market price of our common stock, recent trends in such price, daily average trading volume of our common stock, our current stage of development, future capital needs and other factors.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain our future earnings, if any, for use in our business and therefore do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion.

DILUTION

Our net tangible book value as of June 30, 2012 was $1,690,451, or $0.03 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of June 30, 2012. 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 offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of [*] shares of our common stock in this offering at a price of $[*] per share and after deducting the underwriting discount and estimated offering expenses we must pay, our as adjusted net tangible book value as of [*], 2012 would have been approximately $[*] million, or $[*] per share. This represents an immediate increase in net tangible book value of $[*] per share to existing stockholders and immediate dilution in net tangible book value of $[*] per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Public offering price per share		$
Net tangible book value per share as of June 30, 2012	$0.03	
Increase per share attributable to new investors	$	
As adjusted net tangible book value per share after this offering		$
Dilution per share to new investors		$

The number of shares of common stock to be outstanding after this offering is based on 54,095,105 shares outstanding on June 30, 2012 and excludes as of that date:

- options representing the right to purchase a total of 11,794,129 shares of common stock at a weighted average exercise price of $2.25 per share; and
- warrants representing the right to purchase a total of 19,390,176 shares of common stock at a weighted-average exercise price of $2.18 per share; and
- restricted stock units representing the right to receive 371,491 shares of common stock.

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

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PLAN OF DISTRIBUTION

Aegis Capital Corp. ("Aegis" or the "Underwriter") is acting as the underwriter in the offering. We have entered into an underwriting agreement, dated [*], 2012 (the "Underwriting Agreement") with Aegis. Subject to the terms and conditions of the Underwriting Agreement, we have agreed to sell to Aegis and Aegis has agreed to purchase, at the public offering price less the underwriting discount set forth on the cover page of this prospectus supplement, the number of shares of common stock listed in the following table:

Name of Underwriter	Number of Shares
Aegis Capital Corp.	

The Underwriter is committed to purchase all the shares of common stock offered by us other than those covered by the option to purchase additional shares described below. The obligations of the Underwriter may be terminated upon the occurrence of certain events specified in the Underwriting Agreement. Furthermore, pursuant to the Underwriting Agreement, the Underwriter's obligations are subject to customary conditions, representations and warranties contained in the Underwriting Agreement, such as receipt by the Underwriter of officers' certificates and legal opinions.

We have agreed to indemnify the Underwriter against specified liabilities, including liabilities under the Securities Act of 1933, and to contribute to payments the underwriters may be required to make in respect thereof.

The Underwriter is offering the shares, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by its counsel and other conditions specified in the Underwriting Agreement. The Underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

We have granted the Underwriter an over-allotment option. This option, which is exercisable for up to 45 days after the date of this prospectus, permits the Underwriter to purchase a maximum of [*] additional shares from us to cover over-allotments. If the Underwriter exercises all or part of this option, it will purchase shares covered by the option, if any, at the public offering price that appears on the cover page of this prospectus supplement, less the underwriting discount.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the Underwriter of its over-allotment option.

	Per Share	Total Without Over-Allotment Option	Total With Over-Allotment Option
Public offering price	$	$	$
Underwriting discount (7%)	$	$	$
Proceeds, before expenses, to us	$	$	$

The Underwriter proposes to offer the shares offered by us to the public at the public offering price set forth on the cover of this prospectus supplement. In addition, the Underwriter may offer some of the shares to other securities dealers at such price less a concession of $[*] per share. The Underwriter may also allow, and such dealers may re-allow, a concession not in excess of $ [*] per share to other dealers. If all of the shares offered by us are not sold at the public offering price, the Underwriter may change the offering price and other selling terms by means of a further supplement to this prospectus supplement.

We have agreed to pay a non-accountable expense allowance to Aegis equal to 1% of the public offering price; provided however a non-accountable expense allowance shall be paid in connection with the over-allotment option only if such over-allotment option is exercised. We have paid an expense advance of $25,000 to Aegis, which will be applied against the non-accountable expense allowance.

As additional compensation to the underwriters, upon consummation of this offering, we will issue warrants to purchase an aggregate number of shares of our common stock equal to 5% percent of all shares of common stock sold in the offering, excluding shares sold upon exercise of the over-allotment option, at an exercise price per share equal to $[*] (the "Underwriter Warrant"). The Underwriter Warrant will become exercisable on the one year anniversary of the commencement of sales (the "Commencement Date") and have a term of five years from the Commencement Date. The Underwriter Warrant and underlying shares of common stock will not be exercised, sold, transferred, assigned, 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 Underwriter Warrant by any person for a period of one year after the Commencement Date in accordance with Financial Industry Regulatory Authority ("FINRA") Rule 5110. The Underwriter Warrant grants a holder a one-time demand and unlimited "piggy back" registration rights for specified periods and customary anti-dilution provisions. The Underwriter Warrant shall be issuable to Aegis.

We have also agreed to pay the Underwriter's expenses relating to the offering, including (a) all fees incurred in clearing this offering with FINRA; (b) all fees, expenses and disbursements relating to the registration, qualification or exemption of securities offered under the securities laws of foreign jurisdictions designated by the underwriters; (c) all fees, expenses, and disbursements relating to background checks of our officers and directors in an amount not to exceed an aggregate of $5,000 per individual; (d) up to $20,000 of the actual road show expenses of the underwriters in connection with the offering; and (e) upon successfully completing this offering, $20,000 for the underwriters' use of Ipreo's book-building, prospectus tracking and compliance software for this offering.

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discount, will be approximately $[*].

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares of common stock offered hereby to any accounts over which they have discretionary authority.

Lock-Up Agreements. Pursuant to certain "lock-up" agreements, we have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic risk of ownership of, directly or indirectly, engage in any short selling of any common stock or securities convertible into or exchangeable or exercisable for any common stock, whether currently owned or subsequently acquired, without the prior written consent of the representatives, for a period of three (3) months after the date of this prospectus supplement, subject to certain exceptions, and subject to an 18-day extension.

Electronic Offer, Sale and Distribution of Shares. A prospectus supplement in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectus supplements electronically. The representatives may agree to allocate a number of shares to underwriters

and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus supplement in electronic format, the information on these websites is not part of this prospectus supplement or the registration statement of which this prospectus supplement forms a part, has not been approved or endorsed by us or the Underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. The underwriter, and its affiliates, may have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees, however, except as disclosed in this prospectus supplement, we have no present arrangements with the Underwriter for any further services.

Stabilization. In connection with this offering, the Underwriter may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the shares while the offering is in progress.

- Over-allotment transactions involve sales by the underwriter of shares 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 they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriter may close out any short position by exercising their over-allotment option and/or purchasing shares in the open market.

- Syndicate covering transactions involve purchases of shares in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which it may purchase shares through exercise of the over-allotment option. If the underwriter sells more shares than could be covered by exercise of the over-allotment option and, therefore, has a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriter is concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the shares originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our shares or common stock or preventing or retarding a decline in the market price of our shares or common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the NYSE AMEX, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive market making. In connection with this offering, the underwriter and selling group members may engage in passive market making transactions in our common stock on the NYSE AMEX in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Offer restrictions outside the United States

Other than in the United States, no action has been taken by us or the underwriter that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such securities 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 into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (i) the offer of

the securities under this prospectus is only made to persons to whom it is lawful to offer the securities without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (ii) this prospectus is made available in Australia only to those persons as set forth in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (i) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer to the offeree under this prospectus.

China

The information in this document does not constitute a public offer of the securities, whether by way of sale or subscription, in the People's Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). The securities may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to "qualified domestic institutional investors."

European Economic Area—Belgium, Germany, Luxembourg and Netherlands

The information in this document has been prepared on the basis that all offers of securities will be made pursuant to an exemption under the Directive 2003/71/EC ("Prospectus Directive"), as implemented in Member States of the European Economic Area (each, a "Relevant Member State"), from the requirement to produce a prospectus for offers of securities.

An offer to the public of securities has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State:

(a) to legal entities that are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity that has two or more of (i) an average of at least 250 employees during its last fiscal year; (ii) a total balance sheet of more than €43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements) and (iii) an annual net turnover of more than €50,000,000 (as shown on its last annual unconsolidated or consolidated financial statements);

(c) to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive) subject to obtaining the prior consent of the Company or any underwriter for any such offer; or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by the Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

France

This document is not being distributed in the context of a public offering of financial securities (offre au public de titres financiers) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (Code monétaire et financier) and Articles 211-1 et seq. of the General Regulation of the French Autorité des marchés financiers ("AMF"). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the securities have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in France.

Such offers, sales and distributions have been and shall only be made in France to (i) qualified investors (investisseurs qualifiés) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D. 744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (cercle restreint d'investisseurs) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation.

Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the securities cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with

Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

Ireland

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005 (the "Prospectus Regulations"). The securities have not been offered or sold, and will not be offered, sold or delivered directly or indirectly in Ireland by way of a public offering, except to (i) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (ii) fewer than 100 natural or legal persons who are not qualified investors.

Israel

The securities offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority, or ISA, nor have such securities been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the securities being offered. Any resale in Israel, directly or indirectly, to the public of the securities offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

Italy

The offering of the securities in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (Commissione Nazionale per le Societ—$$—Aga e la Borsa, "CONSOB" pursuant to the Italian securities legislation and, accordingly, no offering material relating to the securities may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998 ("Decree No. 58"), other than:

- to Italian qualified investors, as defined in Article 100 of Decree no.58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999 ("Regulation no. 1197l") as amended ("Qualified Investors"); and

- in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended.

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Any offer, sale or delivery of the securities or distribution of any offer document relating to the securities in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007 and any other applicable laws; and
- in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the securities in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended, unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such securities being declared null and void and in the liability of the entity transferring the securities for any damages suffered by the investors.

Japan

The securities have not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended (the "FIEL") pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the securities may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires securities may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by any such person of securities is conditional upon the execution of an agreement to that effect.

Portugal

This document is not being distributed in the context of a public offer of financial securities (oferta pública de valores mobiliários) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (Código dos Valores Mobiliários). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the securities have not been, and will not be, submitted to the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários) for approval in Portugal and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer under the Portuguese Securities Code. Such offers, sales and distributions of securities in Portugal are limited to persons who

are “qualified investors” (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Sweden

This document has not been, and will not be, registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the securities be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (Sw. lag (1991:980) om handel med finansiella instrument). Any offering of securities in Sweden is limited to persons who are “qualified investors” (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (“SIX”) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering material relating to the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority (FINMA).

This document is personal to the recipient only and not for general circulation in Switzerland.

United Arab Emirates

Neither this document nor the securities have been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor has the Company received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the securities within the United Arab Emirates.

This document does not constitute and may not be used for the purpose of an offer or invitation. No services relating to the securities, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by the Company.

No offer or invitation to subscribe for securities is valid or permitted in the Dubai International Financial Centre.

United Kingdom

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended ("FSMA")) has been published or is intended to be published in respect of the securities. This document is issued on a confidential basis to "qualified investors" (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the securities may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA. This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the securities has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to Tops Ships.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 ("FPO"), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together "relevant persons"). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Silvestre Law Group, Westlake Village, CA. Blank Rome, LLP New York, New York is acting as counsel for the Underwriter.

EXPERTS

The financial statements incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K have been audited by Stegman & Company, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as expertsin accounting and auditing. Stegman & Company has no interest in the shares being registered in this filing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the Securities and Exchange Commission, or SEC, under the Securities Act, and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete, and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document. You may inspect a copy of the registration statement, including the exhibits and schedules, without charge, at the SEC's public reference room mentioned below, or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

We also maintain a web site at www.neuralstem.com, through which you can access our SEC filings. The information set forth on our web site is not part of this prospectus supplement.

We will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus supplement is delivered, upon such person's written or oral request, a copy of any and all of the information incorporated by reference in this prospectus supplement, other than exhibits to such documents, unless such exhibits are specifically incorporated by reference into the information that this prospectus supplement incorporates. Requests should be directed to the Corporate Secretary, Neuralstem, Inc., 9700 Great Seneca Highway, Rockville, Maryland 20850; telephone: (301) 366-4960. We have authorized no one to provide you with any information that differs from that contained in this prospectus supplement. Accordingly, you should not rely on any information that is not contained in this prospectus supplement. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date of the front cover of this prospectus supplement.

INCORPORATION OF DOCUMENTS BY REFERENCE

Please see the base prospectus section entitled “Incorporation of Certain Information by Reference.”

S-26

$[] of Shares of Common Stock

PROSPECTUS

Aegis Capital Corp

, 2012

S-27

PROSPECTUS

NEURALSTEM, INC.

$50,000,000

Common stock, Preferred stock, Warrants Units

We may from time to time in one or more offerings, offer and sell one or any combination of the securities we describe in this prospectus, either individually or as units comprised of one or more of the offered securities. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement, which will describe the method and the terms of the offering. We will provide you with specific amount, price and terms of the applicable offered securities in one or more supplements to this prospectus. You should read this prospectus and any supplement carefully before you purchase any of our securities.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities, their compensation and any over-allotment options held by them will be described in the applicable prospectus supplement, see “Plan of Distribution.”

Our common stock is listed on the NYSE AMEX under the symbol “CUR.” On October 4, 2010, the closing price of our common stock on the NYSE AMEX was $2.31 per share. Our principal executive offices are located at 9700 Great Seneca Highway, Rockville, MD, and our telephone number at that address is 301-366-4841.

Investing in our securities involves risk. Please carefully read the information under “Risk Factors” beginning on page 3 for information you should consider before investing in our securities.

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.

This prospectus is dated October 14, 2010

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration statement, we may, from time to time, sell any combination of the securities referred to herein in one or more offerings for total gross proceeds of up to $50,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of the offered securities. We also may authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. This prospectus, together with applicable prospectus supplements and any related free writing prospectuses, includes all material information relating to these offerings. We also may add, update or change, in the prospectus supplement and in any related free writing prospectus that we may authorize to be provided to you, any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus. We urge you to read carefully this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the section entitled "Where You Can Find Additional Information," in this prospectus before buying any of the securities being offered. THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any other person to provide you with different or additional information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should assume that the information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security. Our business, financial condition, results of operations and prospectus may have changed since those dates.

This prospectus contains and incorporates by reference market data, industry statistics and other data that have been obtained from, or compiled from, information made available by third parties. We have not independently verified their data. This prospectus and the information incorporated herein by reference includes trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

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 section entitled “Where You Can Find Additional Information.”

You should read this entire prospectus carefully, including the risks of investing discussed under “Risk Factors” beginning on page 3, the information to which we refer you and the information incorporated into this prospectus by reference, for a complete understanding of our business and this offering. References in this prospectus to “our company,” “we,” “our,” “Neuralstem” and “us” refer to Neuralstem, Inc.

THE COMPANY

Overview

We are focused on the development and commercialization of treatments based on transplanting human neural stem cells and small molecule compounds.

We have developed and maintain a portfolio of patents and patent applications that form the proprietary base for our research and development efforts in the area of neural stem cell research. We own or exclusively license fourteen (14) issued patents and twenty-two (22) patent pending applications in the field of regenerative medicine and related technologies. We believe our technology base, in combination with our know-how, and collaborative projects with major research institutions, provide a competitive advantage and will facilitate the development and commercialization of products for use in the treatment of a wide array of neurodegenerative conditions and in regenerative repair of acute disease.

Regenerative medicine is a young and emerging field. Regenerative medicine is the process of creating living, functional tissues to repair or replace tissue or organ function lost due to age, disease, damage, or congenital defects. There can be no assurances that our intellectual property portfolio will ultimately produce viable commercialized products and processes. Even if we are able to produce a commercially viable product, there are strong competitors in this field and our products may not be able to successfully compete against them.

All of our research efforts to date are at the pre-clinical or clinical stage of development. We are focused on leveraging our key assets, including our intellectual property, our scientific team and our facilities, to advance our technologies. In addition, we are pursuing strategic collaborations with members of academia.

Clinical Trials

On December 18, 2008 we filed our first Investigational New Drug Application (“IND”) with the U.S. Food and Drug Administration (“FDA”) to begin a clinical trial to treat Amyotrophic Lateral Sclerosis (“ALS” or “Lou Gehrig’s disease”). On September 21, 2009, the FDA approved our IND. The first patient in our study was dosed on January 21, 2010 at Emory University in Atlanta Georgia. In May of 2010, we announced that, after reviewing the safety data from the first cohort of three patients, the Safety Monitoring Board has approved moving to the next cohort and transplantation of the fourth patient. The first cohort of patients received five injections of the Company's spinal cord stem cells on one side of the spinal cord. The second cohort of three patients will receive ten injections, five on each side of the cord. The trial will ultimately consist of up to 18 ALS patients, who will be examined at regular intervals post-surgery, with final review of the data to come six months after the last patient is treated. To date, we have treated 6 patients. It is still too early in the trials to make any determination as to its level of success, if any.

On August 22, 2010, we filed our second IND with the FDA. The IND is being filed in connection with our proposed Phase I clinical trials for Chronic Spinal Cord injury. We anticipate the study will be a multi-site study in the U.S.

Technology

Stem Cells

Our technology enables the isolation and large-scale expansion of 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 all types. Our two issued core patents entitled: (i) Isolation, Propagation, and Directed Differentiation of Stem Cells from Embryonic and Adult Central Nervous System of Mammals; and (ii) In Vitro Generation of Differentiated Neurons from Cultures of Mammalian Multipotential CNS Stem Cell contain claims which cover the process of

deriving the cells as well as the cells created from this process.

What differentiates our stem cell technology from others is that our patented processes do not require us to direct our cells towards a certain fate by adding specific growth factors. Our cells actually “become” the type of cell they are fated to be. This process and the resulting cells comprise a technology platform that allows for the efficient isolation and production, in commercially reasonable quantities, of neural stem cells from the human brain and spinal cord.

To date we have focused our efforts on applications involving spinal cord stem cells. We believe we have established “proof of principle” for two important spinal cord applications: ALS, or Lou Gehrig’s disease, and Ischemic Spastic Paraplegia (a painful form of spasticity that may arise as a complication of surgery to repair aortic aneurysms). Of these applications, we have commenced Phase I trials with regard to ALS.

We intend to treat both chronic and acute spinal cord injury with the same spinal cord stem cells, utilizing the same injection devices we are using for ALS. The treatment for spinal cord injury will, however, likely only involve a few injections as opposed to the fifteen injection dosage that is ultimately planned for the ALS trial. We, therefore, add to our knowledge about the surgical route of entry for both the ALS patients and the spinal cord injury patients with each patient we treat in the ALS trial.

Small-molecule Compounds

We have performed tests on cultured neural stem cells as well as in animal models in order to validate the performance of small molecule compounds for hippocampal neurogenesis. As a result of those tests, we feel that our small molecule compound may have an application with regard to the treatment of depression. We expect to file an IND to commence human safety trials of our lead small molecule compound to treat major depression in early 2011. In anticipation of filing the IND, we have contracted for a production run of our compound using Good Manufacturing Practice ("GMP") methods which will be large enough to complete safety testing and Phase I clinical trials.

In July of 2009, the U.S. Patent and Trademark Office ("USPTO") issued the patent covered by patent application 12/049,922, entitled "Use of Fused Nicotinamides to Promote Neurogenesis," which claims four chemical entities and any pharmaceutical composition including them.

Research

We have devoted substantial resources to our research programs in order to isolate and develop a series of neural stem cell banks that we believe can serve as a basis for our therapeutic products. Our efforts to date have been directed at methods to identify, isolate and culture large varieties of stem cells of the human nervous system, and to develop therapies utilizing these stem cells. This research is conducted internally, through the use of third party laboratories and consulting companies under our direct supervision, and through collaboration with academic institutes.

Operating Strategy

We employ an outsourcing strategy where we outsource all of our Good Laboratory Practices ("GLP") preclinical development activities and GMP manufacturing and clinical development activities to contract research organizations ("CRO") and contract manufacturing organizations ("CMO") as well as all non critical corporate functions. Manufacturing is also outsourced to organizations with approved facilities and manufacturing practices. This outsource model allows us to better manage cash on hand and eliminates non-vital expenditures. It also allows for us to operate with relatively fewer employees and lower fixed costs than that required by our competitors.

Employees

As of June 30, 2010, we had 9 full-time employees and 11 full time independent contractors. Of these employees, 4 work on research and development and 5 in administration. We also use the services of numerous outside consultants in business and scientific matters.

Corporate Information

We were incorporated in 1997 in the state of Maryland and re-incorporated in the state of Delaware in 2001. Our principal executive offices are located at 9700 Great Seneca Highway, Rockville, MD, and our telephone number at that address is 301-366-4841.

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the

heading “Risk Factors” in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under Item 1A, “Risk Factors,” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009 (as updated in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010) which are incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future and any prospectus supplement related to a particular offering. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

FORWARD-LOOKING STATEMENTS

This prospectus and the registration statement of which it forms a part, any prospectus supplement, any related issuer free writing prospectus and the documents incorporated by reference into these documents contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements deal with our current plans, intentions, beliefs and expectations and statements of future economic performance. Statements containing terms such as “believe,” “do not believe,” “plan,” “expect,” “intend,” “estimate,” “anticipate” and other phrases of similar mean considered to contain uncertainty and are forward-looking statements. In addition, from time to time we or our representatives have made or will make forward-looking statements orally or in writing. Furthermore, such forward-looking statements may be included in various filings that we make with the SEC, or press releases or oral statements made by or with the approval of one of our authorized executive officers. These forward-looking statements are subject to certain known and unknown risks and uncertainties, as well as assumptions that could cause actual results to differ materially from those reflected in these forward-looking statements. Factors that might cause actual results to differ include, but are not limited to, those set forth under Item 1A, “Risk Factors,” and Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” in our most recent Annual Report on Form 10-K, the corresponding sections in our most recent Quarterly Report on Form 10-Q and in our future filings made with the SEC. Readers are cautioned not to place undue reliance on any forward-looking statements contained in this prospectus, any prospectus supplement or any related issuer free writing prospectus, which reflect management’s opinions only as of their respective dates. Except as required by law, we undertake no obligation to revise or publicly release the results of any revisions to any forward-looking statements. You are advised, however, to consult any additional disclosures we have made or will make in our reports to the SEC on Forms 10-K, 10-Q and 8-K, and any amendments thereto. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained in this prospectus, any prospectus supplement or any related issuer free writing prospectus.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities covered by this prospectus for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, clinical trial expenditures, acquisitions of new technologies or businesses, and investments. Additional information on the use of net proceeds from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

DIVIDEND POLICY

We have never paid cash dividends on our common stock. Moreover, we do not anticipate paying periodic cash dividends on our common stock for the foreseeable future. We intend to use all available cash and liquid assets in the operation and growth of our business. Any future determination about the payment of dividends will be made at the discretion of our board of directors and will depend upon our earnings, if any, capital requirements, operating and financial conditions and on such other factors as our board of directors deems relevant.

DESCRIPTION OF SECURITIES TO BE REGISTERED

Description of the Capital Stock

As of the date of this prospectus, our authorized capital stock consists of 150,000,000 shares designated as common stock, $0.01 par value, and 7,000,000 shares designated as preferred stock, $0.01 par value. The only equity securities currently outstanding are shares of common stock. As of October 5, 2010, there were 46,182,178 shares of common

stock issued and outstanding.

The following is a summary of the material provisions of the common stock and preferred stock provided for in our certificate of incorporation and bylaws. For additional detail about our capital stock, please refer to our certificate of incorporation and bylaws, each as amended, copies of which are incorporated by reference into the registration statement to which this prospectus relates.

Common stock

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders and there are no cumulative rights. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for that purpose. However, we are not currently paying any dividends. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. The outstanding shares of common stock are fully paid and non-assessable, and any shares of common stock to be issued upon an offering pursuant to this prospectus and the related prospectus supplement will be fully paid and nonassessable upon issuance.

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company. Our common stock is listed for quotation on the NYSE AMEX under the symbol “CUR.”

Preferred stock

The following description of preferred stock and the description of the terms of any particular series of preferred stock that we choose to issue hereunder and that will be set forth in the related prospectus supplement are not complete. These descriptions are qualified in their entirety by reference to our certificate of incorporation and the certificate of designation relating to that series. The rights, preferences, privileges and restrictions of the preferred stock of each series will be fixed by the certificate of designation relating to that series. The prospectus supplement also will contain a description of certain U.S. federal income tax consequences relating to the purchase and ownership of the series of preferred stock that is described in the prospectus supplement.

We currently have no shares of preferred stock outstanding. Our board of directors has the authority, without further action by the stockholders, to issue up to 7,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions granted to or imposed upon the preferred stock. Any or all of these rights may be greater than the rights of the common stock.

The board of directors, without stockholder approval, can issue preferred stock with voting, conversion or other rights that could negatively affect the voting power and other rights of the holders of common stock. Preferred stock could thus be issued quickly with terms calculated to delay or prevent a change in control of us or make it more difficult to remove our management. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock.

The prospectus supplement for a series of preferred stock will specify:

- the price of and maximum number of shares;
- the designation of the shares;
- the annual dividend rate, if any, whether the dividend rate is fixed or variable, the date or dates on which dividends will accrue, the dividend payment dates, and whether dividends will be cumulative;
- the price and the terms and conditions for redemption, if any, including redemption at our option or at the option of the holders, including the time period for redemption, and any accumulated dividends or premiums;
- the liquidation preference, if any, and any accumulated dividends upon the liquidation, dissolution or winding up of our affairs;
- any sinking fund or similar provision, and, if so, the terms and provisions relating to the purpose and operation of the fund;
- the terms and conditions, if any, for conversion or exchange of shares of any other class or classes of our capital stock or any series of any other class or classes, or of any other series of the same class, or any other securities or assets, including the price or the rate of conversion or exchange and the method, if any, of adjustment;
- the voting rights; and
- any or all other preferences and relative, participating, optional or other special rights, privileges or qualifications, limitations or restrictions.

Preferred stock will be fully paid and nonassessable upon issuance.

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 provides 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.

Description of the Warrants

We may issue warrants for the purchase of our preferred stock or common stock, or any combination thereof. Warrants may be issued independently or together with our preferred stock or common stock and may be attached to, or separate from, any offered securities. Each series of warrants will be issued under a separate warrant agreement to

be entered into between us and the warrant holder or a bank or trust company, as warrant agent. In the event we engage a warrant agent, the warrant agent will act solely as our agent in connection with the warrants. The warrant agent will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. This summary of certain provisions of the warrants is not complete. For the terms of a particular series of warrants, you should refer to the prospectus supplement and the warrant agreement for that particular series.

The prospectus supplement relating to a particular series of warrants to purchase our common stock or preferred stock will describe the terms of the warrants, including the following:

- the title of the warrants;
- the exercise price of the warrants;
- the offering price for the warrants, if any;
- the aggregate number of warrants;
- the designation and terms of the common stock or preferred stock that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each security;

- if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;

- the number of shares of common stock or preferred stock that may be purchased upon exercise of a warrant and the exercise price for the warrants;

- the dates on which the right to exercise the warrants shall commence and expire;

- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

- the currency or currency units in which the offering price, if any, and the exercise price are payable;

- if applicable, a discussion of material U.S. federal income tax considerations;

- the antidilution provisions of the warrants, if any;

- the redemption or call provisions, if any, applicable to the warrants;

- any provisions with respect to the holder's right to require us to repurchase the warrants upon a change in control or similar event; and

- any additional terms of the warrants, including procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

- to vote, consent or receive dividends;

- receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or

- exercise any rights of our stockholders.

Description of the Units

We may issue units comprised of one or more of the other classes of securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The prospectus supplement will describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances the securities comprising the units may be held or transferred separately;

- a description of the terms of any agreement governing the units;

- a description of the provisions for the payment, settlement, transfer or exchange of the units; and

- a discussion of material federal income tax considerations, if applicable; and

The descriptions of the units in this prospectus and in any prospectus supplement are summaries of the material provisions of the applicable agreements. These descriptions do not restate those agreements in their entirety and may not contain all the information that you may find useful. We urge you to read the applicable agreements because they, and not the summaries, define your rights as holders of the units.

PLAN OF DISTRIBUTION

We may sell the offered securities in any of the ways described below or in any combination or any other way set forth in an applicable prospectus supplement from time to time:

- to or through underwriters or dealers;
- through one or more agents; or

- directly to purchasers or to a single purchaser.

The distribution of the securities may be effected from time to time in one or more transactions:

- at a fixed price, or prices, which may be changed from time to time;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;
- the public offering price of the securities and the proceeds to us and any discounts, commissions or concessions allowed or reallowed or paid to dealers; and
- any exchanges on which the securities may be listed.

Any offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

Only the agents or underwriters named in each prospectus supplement are agents or underwriters in connection with the securities being offered thereby.

We may authorize underwriters, dealers or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in each applicable prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in each applicable prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will be subject only to those conditions set forth in each applicable prospectus supplement, and each prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents, underwriters and other third parties described above may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, or to contribution from us with respect to payments that the agents, underwriters or other third parties may be required to make in respect of these civil liabilities. Agents, underwriters and such other third parties may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

One or more firms, referred to as “remarketing firms,” may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals

for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify and describe any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, and may be customers of, engage in transactions with, or perform services for, us in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale.

The securities we offer may be new issues of securities and may have no established trading market. The securities may or may not be listed on a securities exchange. Underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of, or the existence of trading markets for, any of the securities.

Certain persons participating in an offering may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with rules and regulations under the Securities Exchange Act of 1934. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a short covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

We also may sell any of the securities through agents designated by us from time to time. We will name any agent involved in the offer or sale of these securities and will list commissions payable by us to these agents in the applicable prospectus supplement. These agents will be acting on a best efforts basis to solicit purchases for the period of its appointment, unless stated otherwise in the applicable prospectuses.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Silvestre Law Group, P.C., Westlake Village, California.

EXPERTS

Stegman & Company, our independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the years ended December 31, 2009 and 2008, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated by reference in reliance on Stegman & Company's report (to the extent covered by consents filed with the Securities and Exchange Commission), given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement to register the securities offered by this prospectus under the Securities Act. This prospectus is part of that registration statement, but omits certain information contained in the registration statement, as permitted by SEC rules. For further information with respect to our Company and this offering, reference is made to the registration statement and the exhibits and any schedules filed with the registration statement. Statements contained in this prospectus as to the contents of any document referred to are not necessarily complete and in each instance, if the document is filed as an exhibit, reference is made to the copy of the document filed as an exhibit to the registration statement, each statement being qualified in all respects by that reference. You may obtain copies of the registration statement, including exhibits, as noted in the paragraph below or by writing or telephoning us at:

NEURALSTEM, INC
9700 Great Seneca Highway,
Rockville, Maryland 20850
Attn: Chief Financial Officer
Tel : (301) 366-4841

We file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at http://www.sec.gov. You may also read and copy any

document we file at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. You can also inspect reports, proxy statements and other information about us at the offices of the National Association of Securities Dealers, Reports Section, 1735 K Street, N.W., Washington, D.C. 20006.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We incorporate information into this prospectus by reference, which means that we disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for any such information superseded by information contained in later-filed documents or directly in this prospectus. This prospectus incorporates by reference the documents set forth below that we have previously filed with the SEC (excluding those portions of any Form 8-K that are not deemed "filed" pursuant to the General Instructions of Form 8-K). These documents contain important information about us and our financial condition.

We incorporate by reference into this prospectus supplement the information contained in the documents listed below, which is considered to be a part of this prospectus supplement:

- Our Annual Report on Form 10-K and 10-K/A filed with the Commission on March 31, 2010, for the year ended December 31, 2009 and as amended on October 5 2010, respectively;

- Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2010, filed on May 17, 2010;
- Our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2010, filed on August 16, 2010;
- Our Current Reports on Form 8-K filed on June 11, 2010, June 29, 2010, and July 14, 2010 (excluding any information furnished in such reports under Item 2.02, Item 7.01 or Item 9.01);
- Our Definitive Proxy Statement on Form 14A for our 2010 Annual Meeting of Stockholders, filed with the SEC on March 26, 2010; and
- The description of our common stock contained in our Registration Statement on Form SB-2 (Registration No. 333-142451), as amended (the "Registration Statement"), filed under the Securities Act of 1933, as amended, with the Commission on April 30, 2007 and declared effective May 4, 2007.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. You should direct written requests to: NEURALSTEM, INC, 9700 Great Seneca Highway, Rockville, Maryland 20850 Attn: Chief Financial Officer Tel: (301) 366-4841

$50,000,000

NEURALSTEM, INC.

Common Stock

Preferred Stock

Warrants

Units

PROSPECTUS

October 14, 2010