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Up to 6,000,000 Units Consisting of

One Share of Common Stock and

a Warrant to Purchase one Share of Common Stock

Placement Agent Warrant for the Purchase of up to 360,000 Shares of Common Stock

6,000,000 Shares of Common Stock Underlying the Warrants

360,000 Shares of Common Stock Underlying the Placement Agent Warrant

We are offering up to 6,000,000 units, with each unit consisting of one share of our common stock ("Share") and a warrant to purchase one share of our common stock ("Warrant(s)") (and the shares of common stock issuable from time to time upon exercise of the Warrants), to accredited investors pursuant to this prospectus supplement and the accompanying prospectus. Each unit will be sold at a negotiated price of \$1.00. Each Warrant has an exercise price of \$1.02 per share, and is exercisable 6 months after the closing date. Each Warrant has a term of 5 years from the date of initial exercise. The Shares and the Warrants will be issued separately but will be purchased together in this offering.

As partial compensation for its services in connection with this offering, we will be issuing the placement agent a warrant to purchase up to 360,000 common shares with an exercise price of \$1.25 per share ("Placement Agent Warrant"). In addition to the Shares, Warrants and the Placement Agent Warrant, we are also registering the 6,360,000 common shares underlying the Warrants and Placement Agent Warrant.

Our common stock is listed on the NYSE AMEX under the symbol "CUR." On February 2, 2012, the last reported sale price of our common stock on the NYSE AMEX was \$1.02 per share. There is no market for the Warrants and none are expected to develop.

This investment involves a high degree of risk. Please see the section entitled "Risk Factors" beginning on page S-6 of this prospectus supplement and page 3 of the accompanying prospectus.

T.R. Winston & Company, LLC ("Placement Agent") acted as the placement agent on this transaction. The Placement Agent is not required to sell any specific number or dollar amount of securities. The placement agent has agreed to use its reasonable best efforts to sell the securities offered by this prospectus supplement. We have agreed to pay the placement agent the placement agent fees set forth in the table below.

	Per Unit	Total
Offering price	\$1.00	\$6,000,000
Placement agent fees(1)	\$.05	\$300,000
Proceeds, before expenses, to Neuralstem, Inc.(2)	\$.95	\$5,700,000

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.
Delivery of the units and the closing date is expected to be made on or about February 10, 2012, subject to customar closing conditions, against payment for such units to be received by us on the same date.
(2) The proceeds shown exclude proceeds that we may receive upon exercise of the warrants.
(1) In addition, we have agreed to issue the placement agent warrants to purchase up to 360,000 shares of our common stock at an exercise price of \$1.25 per share and to reimburse the placement agent for certain of its expense as described under "Plan of Distribution" in this prospectus supplement.

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You should rely only on the information contained or incorporated by reference in this prospectus supplement or the accompanying base prospectus. We have not authorized anyone to provide you with information that is different. We

are not making an offer to sell these securities in any jurisdiction where the offer or sale of these securities is not permitted. This document may only be used where it is legal to sell these securities. You should assume that the information in this prospectus supplement and the accompanying base prospectus is accurate only as of their respective dates and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference.

PROSPECTUS SUMMARY

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 herein.

The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that 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 in the accompanying prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering. We have not authorized, and the underwriter has not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement, the accompanying prospectus or free writing prospectus, if any, or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus supplement.

We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of securities in certain 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 our securities 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.

References to, "we," "us," "our company," "Neuralstem," the "Company," and similar terms refer to Neuralstem, Inc., a Delaware corporation, unless the context otherwise requires.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These forward-looking statements include, but are not limited to, statements about:

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 payers 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

Each forward-looking statement should be read in context with, and in understanding of, the various other disclosures concerning our company and our business made elsewhere in this prospectus as well as our public filings with the SEC. You should not place undue reliance on any forward-looking statement as a prediction of actual results or developments. We are not obligated to update or revise any forward-looking statements contained in this report or any other filing to reflect new events or circumstances unless and to the extent required by applicable law.

other risks and uncertainties discussed in greater detail in the section captioned "Risk Factors."

OUR BUSINESS

This summary highlights selected information appearing elsewhere or incorporated by reference in this prospectus may not contain all of the information that is important to you. This summary is not complete and does not contain all of the information that you should consider before investing in our securities. To fully understand this offering and its consequences to you, you should read this entire prospectus supplement and the accompanying base prospectus carefully, including the information referred to under the heading "Risk Factors" in this prospectus supplement beginning on page S-6, and the financial statements and other information incorporated by reference in this prospectus supplement and the accompanying base prospectus when making an investment decision.

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 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-one (21) 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

Stem Cells

On September 21, 2009, the U.S. Food and Drug Administration ("FDA") approved our first Investigational New Drug Application ("IND") to begin Phase I clinical studies on our treatment for Amyotrophic Lateral Sclerosis ("ALS" or "Lou Gehrig's disease"). In October of 2011 the Company announced that, after reviewing safety data from the first 12 patients, the FDA granted approval for the trial to advance to transplanting patients in the cervical (upper back) region for the last six patients in the trial. To date, we have treated 13 patients.

On August 22, 2010, we filed our second IND for our proposed Phase I clinical trials for 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 some 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.

Pharmaceutical Compounds

In February of 2011, we commenced a Phase Ia clinical trial of our drug compound, NSI-189, which 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 Phase Ia trial 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 Phase Ib portion consists of patients with Major Depressive Disorder ("MDD") receiving daily doses for 28 consecutive days. We plan on commencing the Phase Ib portion of the trial during the first quarter of 2012. 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 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.

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. 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.

During 2011, we were selected as the primary subcontractor for a U.S. Department of Defense ("DOD") contract, awarded to Loma Linda University, to develop its human neural stem cell technology for the treatment of cancerous brain tumors. Under the terms of the contract, we may receive up to \$625,000 during the first year. 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).

Pharmaceutical Compounds

The Company has 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 impact 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 the Company announced that it 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. In mice, NSI-189 both stimulated neurogenesis of the hippocampus and increased its volume. Additionally, NSI-189 stimulated neurogenesis of human hippocampus-derived neural stem cells in vitro. 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. The 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.

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 December 31, 2011, we had 14 full-time employees. Of these full-time employees, eight work on research and development and six 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 prospectus supplement or the accompanying base prospectus the information in, or that can be accessed through, our website, and you should not consider it to be a part of this prospectus supplement or the accompanying prospectus.

THE OFFERING

Common stock we are offering	Up to 6,000,000 shares
Investor Warrants	Warrants to purchase up to an aggregate of 6,000,000 shares of common stock at \$1.02 per share will be issued to the investors. The Warrants have a term of 5 years from the initial exercise date and is exercisable 6 months after the closing date.
Common stock to be outstanding after this offering ⁽¹⁾	54,682,118 shares
Use of proceeds	We intend to use the net proceeds of this offering for general corporate purposes, including working capital, product development and capital expenditures. See "Use of proceeds."
Placement Agent Warrant	Warrants to purchase up to 360,000 shares of common stock will be issued to the Placement Agent as partial compensation for its services in connection with this offering. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the placement agent warrants.
NYSE Amex symbol	CUR

- (1) The number of shares of our common stock to be outstanding after this offering is based on 48,682,118 shares outstanding as of September 30, 2011 and excludes as of such date:
- 24,145,550 common shares reserved for issuance upon the exercise of current outstanding options, warrants, convertible securities at a weighted-average exercise price of \$2.54.
- 394,351 common shares reserved for issuance upon the vesting and termination of certain transfer restrictions with regard to restricted stock units and restricted stock awards.
 - 6,384,575 common shares reserved for issuance pursuant to future awards under our incentive stock plans.

RISK FACTORS

Your investment in our shares of common stock is subject to certain risks. This prospectus does not describe all of those risks. You should consult your own financial and legal advisors about the risks entailed by an investment in our shares of common stock and the suitability of your investment in our shares of common stock in light of your particular circumstances. For a discussion of some of the factors you should carefully consider before deciding to purchase any of our shares of common stock that may be offered, please read "Risk Factors" in the documents incorporated by reference herein, as well as those risk factors included below. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also adversely affect our business and operations. If any of the matters described in the risk factors were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially adversely affected. In such case, you could lose all or a portion of your investment.

Risks Related to the Offering

You will experience immediate and substantial dilution in the book value per share of the common stock you purchase.

The public offering price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock outstanding prior to our offering. Therefore, if you purchase our common stock in this offering, you will incur immediate dilution of \$0.83735 in net tangible book value per share from the price you paid. For a further description of the dilution that you will experience immediately after this offering, see the section titled "Dilution."

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.

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 an 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.

Additional Risks Related to our Business, Industry and an Investment in our Common Stock

For a discussion of additional risks associated with our business, our industry and an investment in our common stock, see the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K (and as amended), as filed with the SEC on March 16, 2011, our most recent Quarterly Report on Form 10-Q, as filed with the SEC on August 9, 2011 and amended on September 23, 2011 and any other subsequently filed document that is also incorporated or deemed to be incorporated by reference in this prospectus supplement, including our Quarterly Reports on Form 10-Q.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the Units will be approximately \$5,650,000, assuming that we sell the maximum number of securities we are offering pursuant to this prospectus supplement. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual number of securities sold, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the amount set forth above. In the event the Warrants and Placement Agent Warrant are exercised, we will receive an additional \$6,570,000.

We intend to invest the net proceeds in money market funds and/or short-term investment-grade securities until we are ready to use them. 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.

The amounts and timing of these expenditures may vary significantly depending on numerous factors, such as the progress of our research and development efforts, actions of regulatory authorities, technological advances and the competitive environment for our products. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. Accordingly, we will retain broad discretion over the use of these proceeds.

DETERMINATION OF OFFERING PRICE

We established the price following negotiations with prospective investors 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 paid or declared cash dividends on our common stock, and we do not intend to pay or declare cash dividends on our common stock in the foreseeable future.

DILUTION

Our net tangible book value as of September 30, 2011 was approximately \$3.244 million, or approximately \$0.0663 per share. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the aggregate number of shares of our common stock outstanding as of September 30, 2011. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this public offering and the net tangible book value per share of our common stock immediately after this offering. After giving effect to the sale of 6,000,000 shares of common stock in this public offering at a public offering price of \$1.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us of approximately \$50,000, our as adjusted net tangible book value as of September 30, 2011 would have been approximately \$8.894 million, or approximately \$0.16265 per share. This represents an immediate dilution of \$0.83735 per share to new investors purchasing shares of common stock in this public offering.

The following table illustrates this dilution:

Offering price per share		\$1.00 \$123,000
Net tangible book value per share as of September 30, 2011	\$3,243,908	Ψ1 2 2,000
Increase in net tangible book value per share attributable to new investors	\$5,650,000	
As adjusted, net tangible book value per share as of September 30, 2011 after giving effect to this public offering		\$0.16265
Dilution per share to new investors		\$0.83735

The foregoing discussion and table do not take into account further dilution to new investors that could occur upon the exercise of outstanding options or warrants having a per share exercise price less than the per share offering price to the public in this offering. 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.

The foregoing discussion and table are based on 48,682,118 shares of common stock issued and outstanding as of September 30, 2011 and exclude:

24,145,550 common shares reserved for issuance upon the exercise of current outstanding options, warrants, and convertible securities at a weighted-average exercise price of \$2.54.

394,351 common shares reserved for issuance upon the vesting and termination of certain transfer restrictions with regard to restricted stock units and restricted stock awards.

• 6,626,300 common shares reserved for issuance pursuant to future awards under our incentive stock plans.

The foregoing discussion and table also exclude the following stock and option transactions that were entered into subsequent to September 30, 2011:

2,400 common shares previously reserved for issuance upon exercise of expired options which result in an increase in common shares reserved for issuance pursuant to future awards under our incentive stock plans and a decrease in common shares reserved for issuance upon exercise of current outstanding options, warrants and convertible securities.

DESCRIPTION OF SECURITIES

In this offering, we are offering up to 6,000,000 Units to investors and a warrant to purchase up to 360,000 common shares as compensation to the placement agent for its services in connection with this offering. Each unit ("Unit") consisting of: (i) one Share; and (ii) one Warrant. This prospectus supplement also relates to the offering of shares of our common stock issuable upon exercise, if any, of the Warrants.

Common Stock

The material terms and provisions of our common stock are described under the caption "Description of Common Stock" starting on page 4 of the accompanying prospectus.

Warrants.

The material terms and provisions of the Warrants being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary does not purport to be complete and is subject to, and qualified in its entirety by the warrants.

<u>General</u>. Investors will receive Warrants with a term of five years following the initial exercise date to purchase an aggregate of up to 6,000,000 shares of our common stock at an exercise price of \$1.02 per share

<u>Exercisability</u>. The warrants are exercisable, in whole or in part, at any time and from time to time during the period commencing 6 months from the Closing and ending on the expiration of the Warrants term. The Warrants are exercisable for cash in the event there is a valid registration statement covering the underlying shares or on a cashless if there is not a valid registration statement.

Exercise Price. The exercise price per share of common stock underlying the warrants is \$1.02, subject to adjustment as described below.

Adjustments. In the event of stock splits, stock dividends on our common stock, stock combinations, or similar events, the exercise price of the warrants, and shares underlying warrants may be subject to adjustment. In addition, in the event we consummate any merger, consolidation, sale or other reorganization event in which our common stock is converted into or exchanged for securities, cash or other property, then following such event, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property which the holders would have received had they exercised the warrants immediately prior to such reorganization event. The exercise price and number of shares underlying the warrants are not subject to adjustment in the event of a subsequent financing. In addition, as further described in the form of warrants filed an exhibit to a current report on Form 8-K that will be incorporated herein by reference, in the event of any fundamental transaction completed for cash, as a transaction under Rule 13e-3 of the Securities Exchange Act of 1934, or involving a person not trading on a national securities exchange, the holders of the warrants will have the right to require us to purchase the warrant for an amount in cash that is determined in accordance with a formula set forth in the warrants.

<u>Fractional Shares</u>. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we can elect to either pay the holder an amount in cash equal to the fractional amount multiplied by the market value of a share of common stock or round up the number of shares to the next whole share.

<u>Transferability</u>. The Warrants are transferable pursuant to their terms separately from the Shares being offering.

<u>Ownership Cap and Exercise Restrictions</u>. Under the terms of each warrant, at no time may a holder of a warrant exercise the warrant if the acquisition of the number of shares being purchased would result in the holder owning more than 4.99% of the common stock then outstanding. This maximum percentage may be increased, subject to sixty one (61) days prior notice to us by the holder, provided that the maximum percentage may not exceed 9.99% of our then outstanding shares of common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the warrant that have not been exercised.

<u>Additional Provisions</u>. The above summary of certain terms and provisions of the warrants is qualified in its entirety by reference to the detailed provisions of the warrants, the form of which will be filed as an exhibit to a current report on Form 8-K that will be incorporated herein by reference. No holders of the warrants will possess any rights as a stockholder under those warrants until the holder exercises those warrants.

Placement Agent Warrant

The material terms and provisions of the warrants being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary does not purport to be complete and is subject to, and qualified in its entirety by reference to, all the provisions of the warrants.

General. The placement agent will receive warrants, which are exercisable 6 months from Closing and have a term of five years from the effective date of the registration statement of which this prospectus supplement is a part, to purchase an aggregate of 360,000 shares of our common stock at an exercise price of \$1.25 per share which is equal to 125% of the offering price per share in the offering. The terms of the Placement Agent Warrant are substantially similar to those of the Warrants except as described herein.

Adjustments. In the event of stock splits, stock dividends on our common stock, stock combinations, or similar events, the exercise price of the warrants, and shares underlying warrants may be subject to adjustment. In addition, in the event we consummate any merger, consolidation, sale or other reorganization event in which our common stock is converted into or exchanged for securities, cash or other property, then following such event, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property which the holders would have received had they exercised the warrants immediately prior to such reorganization event. The exercise price and number of shares underlying the warrants are not subject to adjustment in the event of a subsequent financing. In addition, as further described in the form of warrants filed as an exhibit to a current report on Form 8-K that will be incorporated herein by reference, in the event of any fundamental transaction completed for cash, as a transaction under Rule 13e-3 of the Securities Exchange Act of 1934, or involving a person not trading on a national securities exchange, the holders of the warrants will have the right to require us to purchase the warrant for an amount in cash that is determined in accordance with a formula set forth in the warrants.

<u>Fractional Shares</u>. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we can elect to either pay the holder an amount in cash equal to the fractional amount multiplied by the market value of a share of common stock or round up the number of shares to the next whole share.

<u>Transferability</u>. Pursuant to FINRA Rule 5110(g)(1), neither the Placement Agent warrants nor any shares of common stock issued upon exercise of the Placement Agent warrants may be sold, transferred, assigned, pledged, or hypothecated, or be subject to any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of such securities by any person for a period of 180 days immediately following the date hereof, except the transfer of any security:

by operation of law or by reason of our reorganization;

to any FINRA member firm participating in the offering and the officers and partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period;

if the aggregate amount of our securities held by the Placement Agent or related person does not exceed 1% of the securities being offered;

that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

Ownership Cap and Exercise Restrictions. Under the terms of each warrant, at no time may a holder of a warrant exercise the warrant if the acquisition of the number of shares being purchased would result in the holder owning more than 4.99% of the common stock then outstanding. This maximum percentage may be increased, subject to sixty one (61) days prior notice to us by the holder, provided that the maximum percentage may not exceed 9.99% of our then outstanding shares of common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the warrant that have not been exercised

<u>Additional Provisions</u>. The above summary of certain terms and provisions of the warrants is qualified in its entirety by reference to the detailed provisions of the warrants, the form of which will be filed as an exhibit to a current report on Form 8-K that will be incorporated herein by reference. No holders of the warrants will possess any rights as a stockholder under those warrants until the holder exercises those warrants.

PLAN OF DISTRIBUTION

We have engaged T.R. Winston & Company, LLC as our placement agent in connection with this offering. The placement agent is not purchasing or selling any of the Units we are offering, and it is not required to arrange the purchase or sale of any specific number of Units or dollar amount, but the placement agent agreed to use commercially reasonable efforts to arrange for the sale of the Units.

The terms of any such offering will be subject to market conditions and negotiations between us and prospective purchasers. The engagement agreement does not give rise to any commitment by the placement agent to purchase any of our Units, and the placement agent will have no authority to bind us by virtue of the placement agency agreement. Further, the placement agent does not guarantee that it will be able to raise new capital in any prospective offering.

We will enter into securities purchase agreements directly with the purchasers in connection with this offering, and we will only sell to purchasers who have entered into securities purchase agreements.

We will deliver the Shares being issued to the purchasers electronically upon receipt of purchaser funds for the purchase of the Shares offered pursuant to this prospectus supplement. We expect to deliver the Shares being offered pursuant to this prospectus supplement on or about February 10, 2012, which will be deemed the closing date. We will deliver the Warrants and Placement Agent Warrant in physical form.

We have agreed to pay T.R. Winston & Company, LLC a placement agent fee equal to: (i) a cash fee equal to 5% of the gross proceeds of this offering or \$300,000; and (ii) a Placement Agent Warrant equal to 6% of the number of Shares sold in this offering. The Placement Agent Warrant has an exercise price equal to \$1.25, which is 125% of the offering price per share in the offering, will be exercisable 6 months following the closing and will expire on October 14, 2015, which is five years from the effective date of the registration statement of which this prospectus supplement is a part, and will otherwise comply with the rules of the Financial Industry Regulatory Authority, or FINRA. Additional terms of the placement agent warrants are set forth under "Description of Securities – Placement Agent Warrant" herein. In addition, we have agreed to reimburse the expenses of the placement agent in connection with the offering in the amount of \$15,000.

The following table shows the per Unit and total commission we will pay to the placement agent in connection with the sale of Units pursuant to this prospectus supplement and the accompanying prospectus, assuming the purchaser of all of the Units offered hereby and excluding proceeds that we may receive upon exercise of the warrants.

	Per Unit	Total
Offering price	\$1.00	\$6,000,000
Placement agent fees (1)	\$.05	\$300,000
Proceeds, before expenses, to Neuralstem, Inc	\$.95	\$5,700,000

(1) In addition, we have agreed to issue the placement agent warrants to purchase up to 360,000 shares of our common stock at an exercise price of \$1.25 per share and to reimburse the placement agent for certain of its expenses as described herein.

In compliance with the guidelines of FINRA, the maximum consideration or discount to be received by the placement agent or any other FINRA member may not exceed 8% of the gross proceeds to us in this offering or any other offering in the United States pursuant to the Prospectus.

The engagement agreement with T.R. Winston & Company, LLC will be included as an exhibit to a Current Report on Form 8-K that we will file with the SEC and that will be incorporated by reference into the registration statement.

The estimated offering expenses payable by us, in addition to the placement agent fees of \$300,000, are approximately \$50,000, which includes legal, accounting and printing costs and various other fees associated with registering and listing the common stock. After deducting certain fees due to the placement agent and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$5,650,000.

We have agreed to indemnify the placement agent and certain other persons against certain liabilities relating to or arising out of the placement agent's activities under the placement agency agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the common stock and warrants sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by the placement agent acting as principal. Under these rules and regulations, the placement agent:

may not engage in any stabilization activity in connection with our securities; and

may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by The Silvestre Law Group, P.C. Westlake Village, California. The Silvestre Law Group, P.C. or its affiliates or principals own 54,000 shares of common stock. Ellenoff Grossman & Schole LLP, New York, New York, is counsel for the Placement Agent in connection with this offering.

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 experts in accounting and auditing. Stegman & Company has no interest in the shares being registered in this filing.

WHERE YOU CAN FIND MORE INFORMATION

We are a public company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). You may 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. You can request copies of these

documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available to the public at the SEC's web site at http://www.sec.gov.

In addition, we maintain a web site that contains information regarding our company, including copies of reports, proxy statements and other information we file with the SEC. The address of our web site is www.neuralstem.com. Except for the documents specifically incorporated by reference into this prospectus, information contained on our website or that can be accessed through our website does not constitute a part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the SEC registering the securities that may be offered and sold hereunder. The registration statement, including exhibits thereto, contains additional relevant information about us and these securities that, as permitted by the rules and regulations of the SEC, we have not included in this prospectus supplement or the accompanying prospectus. A copy of the registration statement can be obtained at the address set forth above. You should read the registration statement for further information about us and these securities.

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;

•f applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each security;

•f 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