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

Form 10-K

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2005

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
COMMISSION FILE NUMBER 0-19871

STEMCELLS, INC.

(Exact name of Registrant as specified in its charter)

DELAWARE	**94-3078125**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
3155 PORTER DRIVE, PALO ALTO, CA	**94304**
(Address of principal offices)	*(zip code)*

Registrant's telephone number, including area code:
(650) 475 3100

Securities registered pursuant to Section 12(b) of the Act:
NONE

Securities registered pursuant to Section 12(g) of the Act:
COMMON STOCK, $.01 PAR VALUE
JUNIOR PREFERRED STOCK PURCHASE RIGHTS
Title of class

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ☑

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o Accelerated Filer ☑ Non-accelerated filer o

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ☑

Aggregate market value of Common Stock held by non-affiliates at June 30, 2005: $262,614,171. Inclusion of shares held beneficially by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of management policies of the registrant, or that such person is controlled by or under common control with the Registrant.

Common stock outstanding at March 7, 2006: 65,402,682 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement relating to the registrant's 2006 Annual Meeting of Stockholders to be filed with the Commission pursuant to Regulation 14A are incorporated by reference in Part III of this report.

FORWARD LOOKING STATEMENTS

THIS REPORT CONTAINS FORWARD-LOOKING STATEMENTS AS DEFINED UNDER THE FEDERAL SECURITIES LAWS. ACTUAL RESULTS COULD VARY MATERIALLY. FACTORS THAT COULD CAUSE ACTUAL RESULTS TO VARY MATERIALLY ARE DESCRIBED HEREIN AND IN OTHER DOCUMENTS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. READERS SHOULD PAY PARTICULAR ATTENTION TO THE CONSIDERATIONS DESCRIBED IN THE SECTION OF THIS REPORT ENTITLED "MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS" AS WELL AS ITEM 1A UNDER THE HEADING "RISK FACTORS."

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PART I

ITEM 1. *BUSINESS*

Overview

StemCells, Inc. is focused on the discovery and development of stem cell therapeutics to treat damage to or degeneration of major organ systems such as the central nervous system, liver and pancreas. Our aim is to return patients to productive lives and significantly reduce the substantial health care costs often associated with these diseases and disorders. We seek to identify and purify rare stem cells, develop methods and processes to expand and bank them as transplantable cells, and then demonstrate their safety and efficacy as therapeutic agents. In October 2005, we received clearance from the U.S. Food and Drug Administration (FDA) to initiate a Phase I clinical trial to evaluate the safety and preliminary efficacy of our human neural stem cells (HuCNS-SC™) as a treatment for infantile and late infantile neuronal ceroid lipofuscinosis (NCL), two forms of a group of disorders often referred to as Batten disease. In March 2006, we received approval from the Institutional Review Board of the Oregon Health & Science University to begin our Phase I clinical trial at OHSU Doernbecher Children's Hospital in Portland.

Stem cells are cells that can produce all the functional mature cell types found in normal organs of healthy individuals. Progenitor cells are cells that have already developed from the stem cells, but can still produce one or more types of mature cells within an organ. We use cells derived from donated fetal or adult tissue sources, which are supplied to us in compliance with all applicable state and federal regulations. We are not developing embryonic stem cells for therapeutic use. Neither are we involved in any activity directed toward human cloning; our programs are all directed toward the use of tissue-derived cells for treating or curing diseases and injuries.

We have successfully identified, purified, and characterized the human neural stem cell. Our neural stem cell product, HuCNS-SC, is about to begin clinical development for its first indication. We have also identified candidate stem or progenitor cells of the liver and the pancreas. Our candidate liver stem cell, when transplanted into a mouse model of liver degeneration, shows long-term engraftment evidenced by secretion of human hepatic proteins. Based on this data, we plan to develop this cell for potential therapeutic applications to liver diseases.

We believe that, if successfully developed, our stem cell technologies will create the basis for therapies that would address a number of conditions with significant unmet medical needs. Many diseases, such as Alzheimer's, Parkinson's, lysosomal storage diseases and other degenerative diseases of the brain or central nervous system, involve the failure of organs that cannot be transplanted. Other diseases, such as hepatitis and diabetes, involve organs such as the liver or pancreas that can be transplanted, but there is a very limited supply of those organs available for transplant. We estimate that these neural, liver and pancreatic conditions affect more than 55 million people in the United States and account for more than $325 billion annually in health care costs.[1]

On September 26, 1997, we acquired by merger StemCells California, Inc., a California corporation, in exchange for 1,320,691 shares of our common stock and options and warrants for the purchase of 259,296 common shares. StemCells California remains our wholly-owned subsidiary, and the owner or licensee of most of our intellectual property. The members of its Board of Directors are Irving L. Weissman, M.D., and Fred H. Gage, Ph.D., who were the founders of StemCells California, as well as John J. Schwartz, Ph.D. and Martin McGlynn. Drs. Weissman and Schwartz and Mr. McGlynn are also members of the Board of the parent company; Mr. McGlynn is President of StemCells California as well as President and CEO of StemCells, Inc. References in this annual report to "the Company," "we," "us," and similar words include this subsidiary.

[1] This estimate is based on information from the Alzheimer's Association, the Alzheimer's Disease Education & Referral Center (National Institute on Aging), the National Institutes of Health's National Institute on Neurological Disorders and Stroke, the Foundation for Spinal Cord Injury Prevention, Care & Cure, the Centers for Disease Control and Prevention, the Spinal Cord Injury Information Network, the American Association of Diabetes Educators, the Wisconsin Chapter of the Huntington's Disease Society of America, the Cincinnati Children's Hospital Medical Center, JAIDs, the American Liver Foundation, the Northwest Parkinson's Foundation and the Parkinson's Action Network.

Stem Cell Therapy Background

Cells maintain normal physiological function in healthy individuals by secreting or metabolizing substances, such as sugars, amino acids, neurotransmitters and hormones, which are essential to life. When cells are damaged or destroyed, they no longer produce, metabolize or accurately regulate those substances. Cell loss or impaired cellular function are leading causes of degenerative diseases, and some of the specific substances or proteins that are deficient in some of these diseases have been identified. Although administering these substances or proteins has some advantages over traditional pharmaceuticals, such as specificity, there is no existing technology that can deliver them precisely to the sites of action, under the appropriate physiological regulation, in the appropriate quantity, nor for the duration required to cure the degenerative condition. Cells, however, can do all this naturally. Thus, where failing cells are no longer producing needed substances or proteins or where there has been irreversible tissue damage or organ failure, transplantation of stem or progenitor cells may enable the generation of new functional cells, thus potentially restoring organ function and the patient's health.

Stem cells have two defining characteristics: (i) they produce all the kinds of mature cells making up the particular organ; and (ii) they self renew — that is, some of the cells developed from stem cells are themselves new stem cells, thus permitting the process to continue again and again. Stem cells are known to exist for a number of systems of the human body, including the blood and immune system, the central and peripheral nervous systems (including the brain), the skin, bone, and even hair. They are thought to exist for many others, including the liver and pancreas endocrine systems, gut, muscle, and heart. Stem cells are responsible for organ regeneration during normal cell replacement and, to a greater or lesser extent, after injury.

Stem cells are rare and only available in limited supply, whether from the patients themselves or from donors. Cells obtained from the same person who will receive them may be abnormal if the patient is ill or the tissue is contaminated with disease-causing cells. Also, such cells can often be obtained only through significant surgical procedures. Therefore, in order to develop stem cell therapeutics, three key challenges must be overcome: (i) identifying the stem or progenitor cells of a particular organ and testing them for therapeutic potential; (ii) creating processes to enable use of these rare cells in clinical applications, such as expanding and banking them in sufficient quantities to transplant into multiple patients, or purifying them for use in direct transplantation; and (iii) demonstrating the safety and efficacy of these potential therapeutics in human clinical trials.

The Potential of Our Tissue-Derived Stem Cell-Based Therapy

We believe that, if successfully developed, stem cell therapeutics have the potential to provide a broad therapeutic approach comparable in importance to traditional pharmaceuticals and genetically engineered biologics. Stem cells can self-renew and specialize into the different kinds of cells that are commonly lost in various diseases, and our preclinical research suggests that transplanted stem cells may also be able to migrate some distance to the proper location within the body, expand, specialize and replace damaged or defective cells. Because of this, we believe that stem cell therapy may facilitate the return to proper function, potentially for the life of the patient.

To our knowledge, no one has developed an FDA-approved method for replacing lost or damaged tissues from the human nervous system. Replacement of tissues in other areas of the human body is mainly limited to those few cases, such as bone marrow or peripheral blood cell transplants, where transplantation of the patient's own cells is now feasible. In a few additional areas, including the liver, transplantation of donor organs is now used, but is limited by the scarcity of organs available through donation. More recently, investigators have isolated a subset of cells called islet cells from the human pancreas, which have been transplanted into severe diabetic patients with measurable success. However, islet cell transplants are also limited by the availability of suitable pancreata.

StemCells has focused on tissue-derived stem cells for use in homologous therapy, that is, use of brain derived neural stem cells for treatment of brain disorders; liver derived stem/progenitor cells for treatment of liver disorders or pancreas derived stem/progenitor cells for treatment of pancreas disorders. Tissue derived stem cells are poised along the developmental pathway to become the specialized cells of the organ from which they are derived by responding directly to the environmental cues of the host. We believe the homologous use of normal, unmodified tissue-derived stem cells is the most direct way to provide for engraftment of the cells and their differentiating into

the mature specialized cells of the organ, and may decrease the likelihood that the transplanted cells will differentiate into unwanted cell types.

We have developed techniques for discovering novel monoclonal antibodies that can be used to label markers on cell surfaces to identify and isolate specific cell types, and particularly stem and progenitor cells. This methodology allows us to purify the stem cell population and eliminate other unwanted cell types. For example, we have discovered and patented the use of monoclonal antibodies to identify the human neural stem cell as well as a candidate human liver stem cell and a candidate pancreatic stem/progenitor cell.

With respect to the human neural stem cell, our lead product candidate, we have developed proprietary and reproducible processes to identify, purify, expand and bank human neural stem cells from brain tissue. Because the cells are purified normal human neural stem cells, they may be better suited for transplantation and may provide a safer and more effective alternative to therapies that are based on cells derived from cancer cells, animal derived cells or are an unpurified mix of many different cell types. Furthermore, we have shown that these purified and expanded stem cells, when transplanted into immunodeficient mice, engraft, migrate, differentiate into neurons and glial cells and survive for as long as one year with *no sign* of tumor formation or adverse effects on the animals; moreover, the cells were still dividing at the end of the test period. These findings show that our neural stem cells, when transplanted, adopt the characteristics of the host brain and act like normal stem cells, suggesting the possibility of a continual replenishment of normal human brain cells.

Business Strategy

We are seeking to develop and commercialize stem cell therapeutics to treat, and possibly cure, a range of human diseases. Our strategy is to be the first to identify, isolate and patent multiple types of human stem and progenitor cells derived from human tissue with therapeutic and commercial importance; to develop techniques and processes either to reproducibly purify the cells for direct transplant or to enable the expansion and banking of those cells; and then to take them into clinical development as transplantable therapeutics. We believe that patent protection will be available to the first to identify and isolate any of the finite number of different types of human stem cells, and the first to define methods to culture such cells, making the commercial development of stem cell treatment and possible cure of currently intractable diseases financially feasible.

To date, we have identified three rare cell types: the human neural stem cell, a candidate liver stem cell and a candidate pancreas stem cell. We have developed the methods and processes to expand and bank the neural stem cell and are now beginning clinical development of our neural stem cell product, HuCNS-SC.

A central element of our business strategy is to obtain patent protection for the compositions, processes and uses of these multiple types of cells that would make the commercial development of stem cell therapeutics financially feasible. We have obtained rights to certain inventions relating to stem cells and progenitor cells from academic institutions. We expect to continue to expand our search for, and to seek to acquire rights from third parties relating to, new stem and progenitor cells, and to further develop our intellectual property positions with respect to these cells in-house and through research at scholarly institutions. Our portfolio of issued patents includes a method of culturing normal human central nervous system stem and progenitor cells in our proprietary chemically defined media, and our published studies show that these cultured and expanded cells give rise to all three major cell types of the central nervous system. We also have patent applications pending in connection with our search for liver and pancreas stem and progenitor cells.

Research and Development Programs

Overview

We have devoted substantial resources to our research programs to isolate and develop a series of stem and progenitor cells that we believe can serve as a basis for replacing diseased or injured cells. Our efforts to date have been directed at methods to identify, isolate and culture large varieties of stem and progenitor cells of the human nervous system, liver and pancreas and to develop therapies utilizing these stem and progenitor cells.

The following table shows the current status of, and the potential initial indications for, our primary research and product development programs and projects. The table is qualified in its entirety by reference to the more detailed descriptions of such programs and projects appearing elsewhere in this report. We continually evaluate our research and product development efforts and reallocate resources among existing programs or to new programs in light of experimental results, commercial potential, availability of third party funding, likelihood of near-term efficacy, collaboration success or significant technology enhancement, as well as other factors. Our research and product development programs are at relatively early stages of development and will require substantial resources to commercialize.

Program Description and Objective	Stage/Status(1)
Human Neural Stem Cell Repair or replace damaged central nervous system tissue (including spinal cord, stroke-damaged tissue, and tissue affected by certain genetic disorders)	*Clinical:* *Neuronal Ceroid Lipofuscinosis (also known as Batten disease):* • Demonstrated *in vivo* proof of principle showing in a mouse model for Batten disease that HuCNS-SC can • continuously produce the enzyme that is deficient in Infantile Batten disease • protect host neurons from death • extend the lifespan of the HuCNS-SC transplanted mice • *Investigational New Drug (IND) application was cleared by the FDA in October 2005* • *IRB of the Oregon Health & Science University approved initiation of Phase I clinical trial in March 2006* *Preclinical* *Spinal Cord Indications:* • Demonstrated *in vivo* proof of principle in a mouse model for spinal cord injury that transplanted HuCNS-SC • restores motor function in injured animals • directly contributes to the functional recovery: destruction of the human cells results in loss of the re-established motor function • become specialized oligodendrocytes and neurons *Myelin Disorders:* • Demonstrated *in vivo* proof of principle in the myelin deficient shiverer mouse and spinal cord injured mouse that transplanted HuCNS-SC • make new myelin-producing oligodendrocytes in the mouse brain and spinal cord • the oligodendrocytes produce new myelin that wraps tightly around the mouse nerve axons to form myelin sheath *Research* • Identified cell surface markers and methods for purification of human central nervous system stem cells

Program Description and Objective	Stage/Status(1)
	• Demonstrated the ability to reproducibly identify and purify human neural stem cells • Demonstrated *in vitro* the ability to initiate and expand stem cell-containing human neural cultures and specialization into three types of central nervous system cells • Demonstrated the ability to create human neural stem cell banks • Demonstrated in rodent studies that transplants of expanded and banked human brain-derived stem cells are accepted and properly specialized into the three major cell types of the central nervous system with no tumor formation
Liver Stem Cell Repair or replace liver tissue damaged or destroyed by cirrhosis and certain metabolic genetic diseases	• Identified cell surface markers and methods for purification of candidate human liver stem/progenitor cells (hLECs) • Identified *in vitro* culture assay for growth of human liver stem/progenitor cells that express markers for both bile duct cells and hepatocytes • Demonstrated the engraftment and survival of the hLECs in an *in vivo* mouse liver degeneration model • Detected human albumin and -amino transferase in mouse serum in animals transplanted with hLECs
Pancreas Stem Cell Repair or replace damaged pancreas islet tissue	• Identified cell surface markers and methods for purification of candidate human pancreatic stem/progenitor cells (hPSCs) • Developed *in vitro* screening assay for testing biological activity of hPSCs

(1) "Research" refers to early stage research and product development activities *in vitro*, including the selection and characterization of product candidates for preclinical testing. "Preclinical" refers to further testing of a defined product candidate *in vitro* and in animals prior to clinical studies. "Clinical" refers to the testing of a defined product candidate in humans.

Neural Program

Neurological disorders such as Parkinson's disease, Alzheimer's disease, the side effects of stroke, and the neural degeneration that accompanies genetic disorders such as Type II Gaucher's Disease, Krabbe's Disease, and Batten disease affect a significant portion of the U.S. population and there currently are no effective long-term therapies for them. We believe that therapeutics based on our process for identifying, isolating and culturing neural stem and progenitor cells may be useful in treating such diseases. We are continuing our research into, and have initiated the development of, human central nervous system stem and progenitor cell-based therapies for some of these diseases.

StemCells Inc holds a substantial portfolio of issued and allowed patents in the neural field. See **"Patents, Proprietary Rights and Licenses."**

Neuronal Ceroid Lipofuscinosis (NCL; also known as Batten disease).

Neuronal ceroid lipofuscinosis (NCL), which is often referred to as Batten disease, is a rare neurodegenerative disease that affects infants and young children. All three forms of NCL — infantile, late infantile and juvenile —

are caused by the lack of a lysosomal enzyme, but all are genetically different. Infantile and late infantile NCL are brought on by inherited genetic mutations in the *CLN1* gene, which codes for palmitoyl-protein thioesterase 1 (PPT1) and in the *CLN2* gene, which codes for tripeptidyl peptidase I (TPP-I), respectively. As a result of these mutations, the relevant enzyme is either defective or missing, leading to the accumulation of non-degraded lysosomal substrates in various cell types. This accumulation eventually interferes with normal cellular and tissue function, and leads to seizures and progressive loss of motor skills, sight and mental capacity. Today, NCL is always fatal. To correct the major defect in Batten patients, the missing enzyme has to be provided to the brain where it can be taken up by the enzyme-deficient cells. In October 2005, we received clearance from the FDA to initiate a Phase I clinical trial to evaluate the safety and preliminary efficacy of HuCNS-SC as a treatment for infantile and late infantile NCL. Our clinical trial will not treat juvenile NCL. In March 2006, we received approval from the Institutional Review Board at the Oregon Health & Science University to conduct the trial at OHSU Doernbecher Children's Hospital in Portland.

The Phase I trial will be an open label study with two dose levels and is expected to enroll six patients. HuCNS-SC will be transplanted into patients, who will then receive immunosuppression for one year following transplantation. In addition to measuring the safety of HuCNS-SC, the trial will also evaluate HuCNS-SC's ability to affect the progression of the disease. We believe this clinical trial will be the first FDA-approved trial to use purified human neural stem cells as a potential therapeutic agent.

Our preclinical data demonstrates that HuCNS-SC, when transplanted in a mouse model of infantile Batten disease, engraft, migrate throughout the brain, produce the missing PPT1 enzyme, measurably reduce the toxic storage material in the brain, and protect host neurons so that more of them survive; in addition, we have shown that the lifetime of the HuCNS-SC transplanted mice is extended compared to the control group. We have also demonstrated *in vitro* that HuCNS-SC produce TPP-I, the enzyme that is deficient in late infantile Batten disease.

Other Lysosomal Storage Diseases.

Batten disease is one of a group of approximately 46 lysosomal storage diseases ("LSDs"). Some of these LSDs, which are all caused by defective or missing enzymes, can be treated by enzyme replacement therapies. Examples of enzyme replacement products used in these therapies are Cerezyme™ for Gaucher disease, Fabryzyme™ for Fabry disease, Myozyme for Pompe disease, Aldurazyme™ for MPS I and Naglazyme™ for MPS VI. About half of the lysosomal storage diseases, however, affect the central nervous system; consequently, enzyme replacement therapy is not currently a practical treatment option for this subset of LSDs because enzymes are typically too large to cross the blood-brain barrier. We believe that HuCNS-SC may have the potential to treat some LSDs that affect the CNS by acting as cellular mini-pumps for the secretion and supply of missing enzymes to the brain. To date, we have found that HuCNS-SC can produce the relevant enzyme in several LSDs that affect the CNS, including the infantile and late infantile forms of Batten disease.

Spinal Cord Indications.

Stem cells may have the potential to treat various spinal cord indications. Using a mouse model of spinal cord injury, our collaborators, Drs. Aileen Anderson and Brian Cummings of the Reeve-Irvine Center at the University of California, have shown that HuCNS-SC have the potential to protect and regenerate damaged nerves and nerve fibers, and that injured mice transplanted with our human neural stem cells showed improved motor function compared to control animals. Inspection of the spinal cords from these mice showed significant levels of human neural cells derived from the transplanted stem cells. Moreover, the human cells that are found in the spinal cord of the transplanted mice matured into oligodendrocytes, the specialized neural cell that forms the myelin sheath around axons, insulating them and enabling them to conduct signals to other axons. Drs. Anderson and Cummings then selectively ablated the human cells, and found that the functional improvement was lost, thus demonstrating that the human cells had played a direct role in the functional recovery of the transplanted mice. We continue to conduct preclinical research on using HuCNS-SC as a potential therapeutic for various spinal cord indications.

Other Remyelination Indications.

In addition to certain spinal cord indications, loss of myelin characterizes conditions such as multiple sclerosis, cerebral palsy and certain genetic disorders (for example, Krabbe's disease and metachormatic leukodystrophy). We have transplanted HuCNS-SC into the brain of the mutant shiverer mouse, which is deficient in myelin, and shown widespread engraftment of human cells that matured into oligodendrocytes, the myelin producing cells, and that these oligodendrocytes produce myelin. Furthermore, analysis of the brain tissue of these mice shows the myelin produced by the human cells ensheathes the mouse nerve, providing the proper layers of insulation. Further studies are in progress to demonstrate proper function of the newly produced myelin. Pilot studies for understanding myelin production and repair were conducted in collaboration with researchers at the Oregon Health & Science University and the Yale University School of Medicine.

Alzheimer's Disease.

We have an NIH-funded collaboration with Dr. George A. Carlson of the McLaughlin Research Institute to understand the role of Alzheimer's plaques in neuronal cell death in Alzheimer's disease. Dr. Carson has transplanted HuCNS-SC into mouse models of Alzheimer's disease and the cells showed robust engraftment in an environment riddled with Alzheimer's plaques. Longer term studies are in progress to determine whether the HuCNS-SC produce new neurons in specific target areas such as the hippocampus, an area significantly affected in Alzheimer's patients.

Other Neural Collaborations.

We have established a number of other research collaborations in the neural field to assess the effects of transplanting HuCNS-SC into preclinical animal models, including a collaboration with researchers at the Stanford University School of Medicine pertaining to the evaluation of our human neural stem cells in animal models of stroke. Collaborative studies regarding the formation of specific populations of neurons have also been done with researchers at The University of Texas Medical Branch and the University of California, San Diego.

Liver Program

Approximately 1 in 10 Americans suffers from diseases and disorders of the liver for many of which there currently are no effective, long-term treatments. Liver stem cells may be useful in the treatment of some of these diseases, such as hepatitis, liver failure, blood-clotting disorder, cirrhosis of the liver and liver cancer. We focus on isolating candidate liver stem and progenitor cells with therapeutic potential, and seek to establish purified cell populations suitable for transplantation. A source of defined human cells capable of engraftment and substantial liver regeneration could provide a cell-based therapeutic product available to a wider patient base than whole liver (or organ) transplants.

We have identified and purified a candidate human liver stem/progenitor cell (hLEC). When tested in our *in vitro* culture assay, these cells produce human serum albumin, a measure of hepatocyte generation. Our research also shows that hLECs can produce human serum albumin in mouse serum following transplantation into immunodeficient mice, suggesting that once transplanted, hLECs become functional cells. Further, we have demonstrated the robust engraftment and function of these hLECs in a preclinical animal model of liver degeneration, thereby establishing proof of principle of a therapeutic cell for liver disease. Our efforts are now focused on determining which clinical applications of the hLECs to pursue and moving the hLECs into product development.

Pancreas Program

We have used our monoclonal antibody-based search methodology to identify a rare subset of human pancreatic cells that may be candidate pancreatic stem/progenitor cells. If those cells can be differentiated into islet cells, the pancreas cells that produce insulin, they may be useful in the treatment of Type 1 diabetes and those cases of Type 2 diabetes where insulin secretion is defective. We have filed a patent application on the monoclonal antibodies used and have developed what we believe to be an appropriate animal model to test the biological activity of the purified candidate pancreatic stem cells.

Note on State and Federal Grants

In November 2004, California State Proposition 71 (Prop. 71), the California Stem Cell Research and Cures Initiative, was adopted by the electorate. It is intended to encourage stem cell research in the State of California, and to finance such research with State funds of approximately $295 million annually for 10 years beginning with 2005. It is our understanding that the California Institute for Regenerative Medicine created under the Initiative will provide grants, primarily but not exclusively to academic institutions, to advance both embryonic stem cell research and adult stem cell research; the latter is the current and exclusive focus at StemCells. We are eligible to receive Prop. 71 generated funds and we do intend to apply for such funding; no funding is now available, however, pending resolution of legal issue challenges to Prop 71. We also remain eligible for federal government support from the National Institutes of Health (NIH) due to our focus on adult stem cells. NIH grants to us or to our academic collaborators assist research in the use of our cells for various diseases and conditions such as Alzheimer's disease and spinal cord injuries. Prop. 71 funds will not go to any project that receives NIH funding. We consider government grants to be important confirmation of the quality of our science and intellectual property, but do not rely on them as a significant source of financial support.

License Agreements

We have entered into a number of research-plus-license agreements with academic organizations including The Scripps Research Institute (Scripps), the California Institute of Technology (Cal Tech), the Oregon Health & Science University (OHSU), and the University of Texas Medical Branch. The research components of these agreements have been concluded and have resulted in a number of licenses for resultant technology. Under the license agreements, we are typically subject to obligations of due diligence and the requirement to pay royalties on products that use patented technology licensed under such agreements. The license agreements with these institutions relate largely to stem or progenitor cells and or to processes and methods for the isolation, identification, expansion or culturing of stem or progenitor cells. Generally speaking, these license agreements will terminate upon expiration, revocation or invalidation of the patents licensed to us, unless governmental regulations require a shorter term. They also will terminate earlier if we breach our obligations under the agreement and do not cure the breach, or if we declare bankruptcy, and we can terminate the license agreements at any time upon notice.

In the case of Scripps, we must pay $50,000 upon the initiation of the Phase II trial for our first product using Scripps licensed technology, and upon completion of that Phase II trial we must pay Scripps an additional $125,000. Upon approval of the first product for sale in the market, we must pay Scripps $250,000.

Pursuant to the terms of our license agreement with Cal Tech, we must pay $10,000 upon the issuance of the first patent in each family licensed to us under the relevant agreement and $5,000 on the first anniversary of the issuance of each such patent. We have paid $30,000 on account of these patents through December 31, 2005. These amounts are creditable against royalties we must pay under the license agreements. The maximum royalties that we will have to pay to the California Institute of Technology will be $2 million per year, with an overall maximum of $15 million. Once we pay the $15 million maximum royalty, the licenses will become fully paid and irrevocable. In August 2002 we acquired an additional license from Cal Tech to different technology, pursuant to which we issued 27,535 shares of our common stock with a market value of approximately $35,000; we have also issued 9,535 shares of our common stock with a market value of approximately $15,000 to Cal Tech on the issuance of two patents covered under this additional license.

In 2002, we issued a license to BioWhittaker, Inc., for the exclusive right to make, sell and distribute one of our proprietary cells for the research market only. In 2003 and 2004 respectively, we issued non-exclusive licenses to StemCell Technologies, Inc. to make, use and sell certain proprietary mouse and rat neural stem cells and culture media for all mammalian neural stem cells, and to R&D Systems to make, use and sell certain stem cell expansion kits, also for the research market. These licenses are not expected to generate material revenues.

Signal Pharmaceuticals, Inc.

In December 1997, we entered into two sublicense agreements with Signal Pharmaceuticals (Signal), Inc. under which each party sublicensed to the other certain patent rights and biological materials for use in defined fields. Signal has now been acquired by Celgene, which in 2004 relinquished its license to the University of

California, which then terminated the sublicense to StemCells for lack of diligence. Effective September 11, 2005, StemCells terminated the remaining sublicense.

NeuroSpheres, Ltd.

In March 1994, we entered into a Contract Research and License Agreement with NeuroSpheres, Ltd., which was clarified in a License Agreement dated as of April 1, 1997. Under the agreement as clarified, we obtained an exclusive patent license from NeuroSpheres for neural stem cells in the field of transplantation, subject to a limited right of NeuroSpheres to purchase a nonexclusive license from us, which right was not exercised and has expired. We have developed additional intellectual property relating to the subject matter of the license. We entered into an additional license agreement with NeuroSpheres as of October 30, 2000, under which we obtained an exclusive license in the field of non-transplant uses, such as drug discovery and drug testing. Together, our rights under the licenses are exclusive for all uses of the technology. We made up-front payments to NeuroSpheres of 65,000 shares of our common stock in October 2000 and $50,000 in January 2001, and we will make additional cash payments when milestones are achieved in the non-transplant field, or in any products employing NeuroSpheres patents for generating cells of the blood and immune system from neural stem cells. In addition, in October 2000 we reimbursed Neurospheres for patent costs amounting to $341,000. Milestone payments, payable at various stages in the development of potential products, would total $500,000 for each product that is approved for market. The first milestone for a potential product is $50,000, became due in 2004 when the product candidate for Batten disease entered preclinical development in a non-rodent model, and has been paid. The next milestone for that product candidate will be $75,000, due upon the commencement of a clinical trial. In addition, we made our second annual payment of $50,000 in 2005; the annual payments are due by the last day of the year and are fully creditable against royalties due to NeuroSpheres. Our agreements with NeuroSpheres will terminate at the expiration of all patents licensed to us, but can terminate earlier if we breach our obligations under the agreement and do not cure the breach, or if we declare bankruptcy. We have a security interest in the licensed technology.

Manufacturing

We believe that our facility in Palo Alto has the capacity to be used for cell processing under FDA-determined Good Manufacturing Practices-like conditions in quantities sufficient for clinical trials, and we believe we have developed a robust and replicable process for producing and processing the cells. In June 2005, we received a manufacturing license for our California-based cell processing facility from the State of California Department of Health Services. In March 2006, we entered an agreement under which additional GMP space for manufacturing and cell processing will be available to us.

Marketing

Because of the early stage of our stem and progenitor cell programs, we have not yet addressed questions of channels of distribution and marketing of potential future products.

Patents, Proprietary Rights and Licenses

We believe that proprietary protection of our inventions will be critical to our future business. We vigorously seek out intellectual property that we believe might be useful in connection with our products, and have an aggressive program of protecting our intellectual property. We believe that our know-how will also provide a significant competitive advantage, and we intend to continue to develop and protect our proprietary know-how. We may also from time to time seek to acquire licenses to important externally developed technologies.

We have exclusive or non-exclusive rights to a portfolio of patents and patent applications related to various stem and progenitor cells and methods of deriving and using them. These patents and patent applications relate to compositions of matter, methods of obtaining such cells, and methods for preparing, transplanting and utilizing such cells. Currently, our U.S. patent portfolio includes forty-one issued U.S. patents, three of which issued in 2005. More than thirty additional patent applications are pending, three of which have been allowed. In addition, we have foreign counterparts to many of the U.S. applications and patents; counterparts to twelve of our U.S. patents or applications have issued in various countries, making a total of over 100 individual non-U.S. patents from those

twelve cases. In 2003, one party filed an opposition to two of our issued European patent cases, which pertains to methods for the *in vitro* production of a cell culture of multipotent neural stem cells and to methods for the differentiation of human neural stem cells into the different types of mature neural cells *in vitro*. Both oppositions were heard in 2005, and the patents were maintained in somewhat altered form by the Opposition Division of the European Patent Office. The time for appeal begins to run in each case when the Opposition Division issues its written opinions, which has not yet occurred. While we are confident that, should the decision be appealed by the opposing party, it will be upheld, there can be no guarantee of this. If we are ultimately unsuccessful in our defense of the opposed patents, all claimed rights in the opposed patents will be lost in Europe. U.S. counterparts to these patents are part of our issued patent portfolio; they are not subject to opposition, since that procedure does not exist under U.S. patent law, although other types of proceedings may be available to third parties to contest our U.S. patents.

Among our most significant patents are:

- U.S. Patent No. 5,851,832, directed to our methods for the human CNS cell cultures containing central nervous system stem cells, for compositions of human CNS cells expanded by these methods, and for use of these cultures in human transplantation. These human CNS stem and progenitor cells expanded in culture may be useful for repairing or replacing damaged central nervous system tissue, including the brain and the spinal cord;
- U.S. Patent No. 5,968,829, entitled “Human CNS Neural Stem Cells,” which is directed to our composition of matter for human CNS stem cells;
- U.S. Patent No. 6,103,530, directed to our media for culturing human CNS stem cells;
- U.S. Patent Number 6,468,794, entitled “Enriched central nervous system stem cell and progenitor cell populations, and methods for identifying, isolating and enriching for such populations” which pertains to the identification and purification of the human CNS stem cell;
- U.S. Patent No. 6,238,922 (“Use of collagenase in the preparation of neural stem cell cultures”), which described methods to advance the *in vivo* culture and passage of human CNS stem cells that result in a 100-fold increase in CNS stem and progenitor cell production after 6 passages. We believe the methodologies of this patent and the one mentioned immediately above together gives us a dominant intellectual property position in the stem cell field by providing a reproducible proprietary method for obtaining and expanding stem cells for therapeutic uses;
- U.S. Patent Number 6,294,346 (“Use of multipotent neural stem cells and their progeny for the screening of drugs and other biological agents”); and
- U.S. Patent Number 6,497,872, entitled “Neural transplantation using proliferated multipotent neural stem cells and their progeny,” pertains to transplanting any neural stem cells or their differentiated progeny, whether the cells have been cultured in suspension or as adherent cells, for the treatment of any disease. We are the exclusive licensees of the patent, which gives us the right to exclude others from practicing the claimed invention.

Among the recent patents issued or exclusively licensed to us are two neurogenin-related patents (U.S. Patents Numbers 12,555,337 and 6,566,496), U.S. Patent Number 6,541,251, relating to a novel pancreatic progenitor gene and its uses, U.S. Patent Number 6,777,233, relating to a cell culture composition of multipotent human neural stem cells regardless of the source of tissue from which the cells are derived, U.S. Patent Number 6,824,774, relating to antibodies that specifically bind to a neuron-restrictive silencer factor protein, and U.S. Patent Number 6,753,153, relating to markers for identification and isolation of certain pancreatic islet progenitors. In addition, we have been informed that three patents pertaining to methods of enriching for neural stem cells, methods of drug screening or drug discovery using enriched populations of neural stem cells, and methods for the *in vitro* proliferation of neural stem cell cultures have been allowed by the U.S. Patent and Trademark Office. We expect these cases to issue shortly.

These new patents have strengthened our already extensive patent portfolio and, we believe, give StemCells the dominant intellectual property position in the field, covering methods for identification, isolation, expansion, and transplantation of neural stem cells as well as drug discovery and testing.

The following table lists our issued U.S. patents:

U.S. Patent Number	Subject	Expiration Date
Owned by StemCells		
5,968,829	Human CNS neural stem cells	5/12/15
6,103,530	Human CNS neural stem cells — culture media	12/22/15
6,238,922	Use of collagenase in the preparation of neural stem cell cultures	11/9/16
6,468,794	Enriched neural stem cell populations, and methods for identifying, isolating and enriching for neural stem cells	11/9/16
6,498,018	Human CNS neural stem cells	6/19/17
6,777,233	Cultures of human CNS neural stem cells	6/19/18 10/20/18
Licensed from NeuroSpheres		9/25/18
5,750,376	*In vitro* genetic modification	10/20/18
5,851,832	*In vitro* proliferation	6/4/19
5,980,885	Methods for inducing *in vivo* proliferation of precursor cells	12/24/19
5,981,165	*In vitro* production of dopaminergic cells from mammalian central nervous system multipotent stem cell compositions	6/19/18
6,071,889	Methods for *in vivo* transfer of a nucleic acid sequence to proliferating neural cells	6/19/18
6,093,531	Generation of hematopoietic cells from multipotent neural stem cells	10/20/18
6,165,783	Methods of inducing differentiation of multipotent neural stem cells	
6,294,346	Methods for screening biological agents	
6,368,854	Hypoxia-mediated neurogenesis	12/31/13
6,399,369	cDNA libraries derived from populations of non-primary neural cells	5/13/14
6,497,872	Neural transplantation using proliferated multipotent neural stem cells and their progeny	8/5/14
6,638,501	Use of multipotent neural stem cell progeny to augment non-neural tissues	9/30/14
6,897,060 B1	Generation of hematopoietic cells	12/2/14
6,924,142 B2	Hypoxia-mediated neurogenesis assay	10/20/15 12/15/15
Licensed from the California Institute of Technology		7/27/16
5,589,376	Mammalian neural crest stem cells	8/10/16
5,629,159	Immortalization and disimmortalization of cells	7/27/12
5,654,183	Genetically engineered mammalian neural crest stem cells	3/7/17
5,672,499	Methods for immortalizing multipotent neural crest stem cells	3/3/15
5,693,482	*In vitro* neural crest stem cell assay	9/27/16
5,824,489	Methods for isolating mammalian multipotent neural crest stem cells	9/27/16
5,849,553	Immortalizing and disimmortalizing multipotent neural crest stem cells	3/3/15
5,928,947	Mammalian multipotent neural crest stem cells	9/25/16
5,935,811	Neuron restrictive silencer factor proteins	
6,001,654	Methods for differentiating neural stem cells to neurons or smooth muscle cells (TGFb)	

U.S. Patent Number	Subject	Expiration Date
6,033,906	Differentiating mammalian neural stem cells to glial cells using neuregulins	12/16/18
6,270,990	Neuron restrictive silencer factor proteins	4/26/21
6,555,337	Neurogenin	12/13/20
6,566,496	Neurogenin	4/26/21
6,824,774	Antibodies that bind neuron-restrictive silencer factor proteins	
6,890,724 B2	Methods and Compositions for Neural Progenitor Cells (cRET)	
		10/10/17
Licensed from the Scripps Research Institute		5/12/15
6,242,666	An animal model for identifying a common stem/progenitor to liver cells and pancreatic cells	12/22/15
6,541,251	Pancreatic progenitor 1 gene and its uses	11/9/16
6,753,153	Markers for identification and isolation of pancreatic islet alpha and beta progenitors	11/9/16
6,911,533	Pancreatic progenitor I gene and its uses	6/6/17
		6/19/18
Licensed from Oregon Health & Science University		10/20/18
6,132,708	Liver regeneration using pancreas cells	9/25/18

We also rely upon trade-secret protection for our confidential and proprietary information and take active measures to control access to that information.

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

We have obtained rights from universities and research institutions to technologies, processes and compounds that we believe may be important to the development of our products. These agreements typically require us to pay license fees, meet certain diligence obligations and, upon commercial introduction of certain products, pay royalties. These include exclusive license agreements with NeuroSpheres, The Scripps Institute, the California Institute of Technology and the Oregon Health & Science University, to certain patents and know-how regarding present and certain future developments in CNS, liver and pancreas stem cells. Our licenses may be canceled or converted to non-exclusive licenses if we fail to use the relevant technology or if we breach our agreements. Loss of such licenses could expose us to the risks of third party patents and/or technology. There can be no assurance that any of these licenses will provide effective protection against our competitors.

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

future patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products, or not be challenged or declared invalid.

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

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

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

Competition

The targeted disease states for our initial products in some instances currently have no effective long-term therapies. However, we do expect that our initial products will have to compete with a variety of therapeutic products and procedures. Major pharmaceutical companies currently offer a number of pharmaceutical products to treat lysosomal storage disorders, neurodegenerative and liver diseases, diabetes and other diseases for which our technologies may be applicable. Many pharmaceutical and biotechnology companies are investigating new drugs and therapeutic approaches for the same purposes, which may achieve new efficacy profiles, extend the therapeutic window for such products, alter the prognosis of these diseases, or prevent their onset. We believe that our products, when and if successfully developed, will compete with these products principally on the basis of improved and extended efficacy and safety and their overall economic benefit to the health care system. The market for therapeutic products that address degenerative diseases is large, and competition is intense. We expect competition to increase. We believe that our most significant competitors will be fully integrated pharmaceutical companies and more established biotechnology companies. Smaller companies may also be significant competitors, particularly through collaborative arrangements with large pharmaceutical or biotechnology companies. Many of these competitors have significant products approved or in development that could be competitive with our potential products.

Competition for any stem and progenitor cell products that we may develop may be in the form of existing and new drugs, other forms of cell transplantation, ablative and simulative procedures, and gene therapy. We believe that some of our competitors are also trying to develop stem and progenitor cell-based technologies. We expect that all of these products will compete with our potential stem and progenitor cell products based on efficacy, safety, cost and intellectual property positions.

We may also face competition from companies that have filed patent applications relating to the use of genetically modified cells to treat disease, disorder or injury. In the event our therapies should require the use of such genetically modified cells, we may be required to seek licenses from these competitors in order to commercialize certain of our proposed products, and such licenses may not be granted or may be available only on unfavorable terms.

If we develop products that receive regulatory approval, they would then have to compete for market acceptance and market share. For certain of our potential products, an important success factor will be the timing of

market introduction of competitive products. This is a function of the relative speed with which we and our competitors can develop products, complete the clinical testing and approval processes, and supply commercial quantities of a product to market. These competitive products may also impact the timing of clinical testing and approval processes by limiting the number of clinical investigators and patients available to test our potential products.

While we believe that the primary competitive factors will be product efficacy, safety, and the timing and scope of regulatory approvals, other factors include, in certain instances, obtaining marketing exclusivity under the Orphan Drug Act, availability of supply, marketing and sales capability, reimbursement coverage, price, and patent and technology position.

Government Regulation

Our research and development activities and the future manufacturing and marketing of our potential products are, and will continue to be, subject to regulation for safety and efficacy by numerous governmental authorities in the United States and other countries.

In the United States, pharmaceuticals, biologicals and medical devices are subject to rigorous Food and Drug Administration, or FDA, regulation. The Federal Food, Drug and Cosmetic Act, as amended, and the Public Health Service Act, as amended, the regulations promulgated thereunder, and other Federal and state statutes and regulations govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, export, record keeping, approval, marketing, advertising and promotion of our potential products. Product development and approval within this regulatory framework takes a number of years and involves significant uncertainty combined with the expenditure of substantial resources. In addition, the federal, state, and other jurisdictions have restrictions on the use of fetal tissue.

FDA Approval

The steps required before our potential products may be marketed in the United States include:

Steps	Considerations
1. Preclinical laboratory and animal tests	Preclinical tests include laboratory evaluation of the cells and the formulation intended for use in humans for quality and consistency. *In vivo* studies are performed in normal animals and specific disease models to assess the potential safety and efficacy of the cell therapy product.
2. Submission to the FDA of an Investigational New Drug application (IND), which must become effective before U.S. human clinical trials may commence	The IND is submitted to the FDA with the preclinical and manufacturing data, a proposed development plan and a proposed protocol for a study in humans. The IND becomes effective 30 days following receipt by the FDA, provided there are no questions, requests for delay or objections from the FDA. If the FDA has questions or concerns, it notifies the sponsor, and the IND will then be on clinical hold until the sponsor responds satisfactorily.
3. Adequate and well-controlled human clinical trials to establish the safety and efficacy of the product	Clinical trials involve the evaluation of a potential product under the supervision of a qualified physician, in accordance with a protocol that details the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Each protocol is submitted to the FDA as part of the IND. The protocol for each clinical study must be approved by an independent Institutional Review Board (IRB) of the institution at which the study is conducted and the informed consent of all

Steps	Considerations
	participants must be obtained. The IRB reviews the existing information on the product, considers ethical factors, the safety of human subjects, the potential benefits of the therapy and the possible liability of the institution. The IRB is responsible for ongoing safety assessment of the subjects during the clinical investigation. Clinical development is traditionally conducted in three sequential phases, Phase 1, 2 and 3. Phase 1 studies for a cell therapy product are designed to evaluate safety in a small number subjects in a selected patient population by assessing adverse effects, and may include multiple dose levels. This study may also gather preliminary evidence of a beneficial effect on the disease. Phase 2 may involve studies in a limited patient population to determine biological and clinical effects of the product and to identify possible adverse effects and safety risks of the product in the selected patient population. Phase 3 trials would be undertaken to conclusively demonstrate clinical benefit or effect and to test further for safety within a broader patient population, generally at multiple study sites. The FDA continually reviews the clinical trial plans and results and may suggest changes or may require discontinuance of the trials at any time if significant safety issues arise.
4. Submission to the FDA of marketing authorization applications	The results of the preclinical studies and clinical studies are submitted to the FDA in the form of marketing approval authorization applications.
5. FDA approval of the application(s) prior to any commercial sale or shipment of the drug. Biologic product manufacturing establishments located in certain states also may be subject to separate regulatory and licensing requirement	The testing and approval process will require substantial time, effort and expense. The time for approval is affected by a number of factors, including relative risks and benefits demonstrated in clinical trials, the availability of alternative treatments and the severity of the disease. Additional animal studies or clinical trials may be requested during the FDA review period, which might add to that time.

After FDA approval for the product, the manufacturing and the initial indications, further clinical trials may be required to gain approval for the use of the product for additional indications. The FDA may also require unusual or restrictive post-marketing testing and surveillance to monitor for adverse effects, which could involve significant expense, or may elect to grant only conditional approvals.

FDA Manufacturing Requirements

Among the conditions for product licensure is the requirement that the prospective manufacturer's quality control and manufacturing procedures conform to the FDA's current good manufacturing practice (cGMP) requirements. Even after product licensure approval, the manufacturer must comply with cGMP on a continuing basis, and what constitutes cGMP may change as the state of the art of manufacturing changes. Domestic manufacturing facilities are subject to regular FDA inspections for cGMP compliance, which are normally held at

least every two years. Foreign manufacturing facilities are subject to periodic FDA inspections or inspections by the foreign regulatory authorities with reciprocal inspection agreements with the FDA. Domestic manufacturing facilities may also be subject to inspection by foreign authorities.

Orphan Drug Act

The Orphan Drug Act provides incentives to drug manufacturers to develop and manufacture drugs for the treatment of diseases or conditions that affect fewer than 200,000 individuals in the United States. Orphan drug status can also be sought for treatments for diseases or conditions that affect more than 200,000 individuals in the United States if the sponsor does not realistically anticipate its product becoming profitable from sales in the United States. We may apply for orphan drug status for certain of our therapies. Under the Orphan Drug Act, a manufacturer of a designated orphan product can seek tax benefits, and the holder of the first FDA approval of a designated orphan product will be granted a seven-year period of marketing exclusivity in the United States for that product for the orphan indication. While the marketing exclusivity of an orphan drug would prevent other sponsors from obtaining approval of the same compound for the same indication, it would not prevent other compounds or products from being approved for the same use including, in some cases, slight variations on the originally designated orphan product.

FDA Human Cell and Tissue Regulations

Our research and development is based on the use of human stem and progenitor cells. The FDA has initiated a risk-based approach to regulating Human Cell, Tissue and Cellular and Tissue-based products and has published current Good Tissue Practice (cGTP) regulations. As part of this approach, the FDA has published final rules for registration of establishments that engage in the recovery, screening, testing, processing, storage or distribution of human cells, tissues, and cellular and tissue-based products, and for the listing of such products. In addition, the FDA has published rules for making suitability and eligibility determinations for donors of cells and tissue and for current good tissue practice for manufacturers using them, which came into effect in May 2005. We cannot yet determine the full effects of this regulatory initiative, including precisely how it may affect the extent of regulatory obligations associated with multipotent stem cell research, and the manufacture and marketing of stem cell products.

Other Regulations

In addition to safety regulations enforced by the FDA, we are also subject to regulations under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and other present and potential future foreign, Federal, state and local regulations.

Outside the United States, we will be subject to regulations that govern the import of drug products from the United States or other manufacturing sites and foreign regulatory requirements governing human clinical trials and marketing approval for our products. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursements vary widely from country to country. In particular, the European Union, or EU, is revising its regulatory approach to biotechnology products, and representatives from the United States, Japan and the EU are in the process of harmonizing and making more uniform the regulations for the registration of pharmaceutical products in these three markets.

Reimbursement and Health Care Cost Control

Reimbursement for the costs of treatments and products such as ours from government health administration authorities, private health insurers and others both in the United States and abroad is a key element in the success of new health care products. Significant uncertainty often exists as to the reimbursement status of newly approved health care products.

The revenues and profitability of some health care-related companies have been affected by the continuing efforts of governmental and third party payers to contain or reduce the cost of health care through various means. Payers are increasingly attempting to limit both coverage and the levels of reimbursement for new therapeutic products approved for marketing by the FDA, and are refusing, in some cases, to provide any coverage for uses of

approved products for disease indications for which the FDA has not granted marketing approval. In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. In the United States, there have been a number of Federal and state proposals to implement government control over health care costs.

Employees

As of December 31, 2005, we had forty-five full-time employees, of whom eleven have Ph.D. degrees. Thirty-three full-time employees work in research and development and laboratory support services. No employees are covered by collective bargaining agreements.

Scientific Advisory Board

Members of our Scientific Advisory Board (SAB) provide us with strategic guidance in regard to our research and product development programs, as well as assistance in recruiting employees and collaborators. Each SAB member has entered into a consulting agreement with us. These consulting agreements specify the compensation to be paid to the consultant and require that all information about our products and technology be kept confidential. All of the SAB members are employed by employers other than us and may have commitments to or consulting or advising agreements with other entities that limit their availability to us. The SAB members have generally agreed, however, for so long as they serve as consultants to us, not to provide any services to any other entities that would conflict with the services the member provides to us. We are entitled to terminate the arrangements if we determine that there is such a conflict. Members of the SAB offer consultation on specific issues encountered by us as well as general advice on the directions of appropriate scientific inquiry for us. In addition, SAB members assist us in assessing the appropriateness of moving our projects to more advanced stages. The following persons are members of our SAB:

- Irving L. Weissman, M.D., is the Virginia and Daniel K. Ludwig Professor of Cancer Research, Professor of Pathology and Professor of Developmental Biology at Stanford University, Stanford California, and Director of the Stanford University Institute for Stem Cell Biology and Regenerative Medicine, as well as Director of the Stanford Comprehensive Cancer Center. Dr. Weissman's lab was responsible for the discovery of the first ever mammalian stem cell, the hematopoietic (blood-forming) stem cell. Dr. Weissman was responsible for the formation of three stem cell companies, SyStemix, Inc., StemCells, Inc., and Cellerant, Inc. He is a member of the Board of Directors and Chairman of the Scientific Advisory Boards of StemCells and Cellerant. Dr. Weissman co-discovered the mammalian and human hematopoietic stem cells and the human neural stem cell. He has extended these stem cell discoveries to cancer and leukemia, discovering the leukemic stem cells in human and mouse acute myeloid leukemias, and has enriched the cancer stem cells in several human brain cancers. Past achievements of Dr. Weissman's laboratory include identification of the states of development between stem cells and mature blood cells, the discovery and molecular isolation and characterization of lymphocyte and stem cell homing receptors, and identification of the states of thymic lymphocyte development. His laboratory at Stanford has developed accurate mouse models of human leukemias, and has shown the central role of inhibition of programmed cell death in that process. He has also established the evolutionary origins of pre-vertebrate stem cells, and identified and cloned the transplantation genes that prevent their passage from one organism to another. Dr. Weissman has been elected to the National Academy of Science, the Institute of Medicine of the National Academies, the American Association of the Arts and Sciences, the American Society of Microbiology, and several other societies. He has received the Kaiser Award for Excellence in Preclinical Teaching, the Pasarow Foundation Award for Cancer Research, the California Scientist of the Year (2002), the Kovalenko Medal of the National Academy of Sciences, the Elliott Joslin Medal for Diabetes Research, the de Villiers Award for Leukemia Research, the Irvington Award for Immunologist of the Year, the Bass Award of the Society of Neurosurgeons, the New York Academy of Medicine Award for Medical Research, the Alan Cranston Award for Aging Research, the Linus Pauling Award for Biomedical Research, the E. Donnall Thomas Award for Hematology Research, the van Bekkum Award for Stem Cell Research, the Outstanding Investigator Award from the National Institutes of Health, and many other awards.

- David J. Anderson, Ph.D., is Roger W. Sperry Professor of Biology, California Institute of Technology, Pasadena, California and Investigator, Howard Hughes Medical Institute. His laboratory was the first to isolate a multipotent, self-renewing, stem cell for the peripheral nervous system, the first to identify instructive signals that promote the differentiation of these stem cells along various lineages, and the first to accomplish a direct purification of peripheral neural stem cells from uncultured tissue. Dr. Anderson's laboratory also was the first to isolate transcription factors that act as master regulators of neuronal fate. More recently, he has identified signals that tell a neural stem cell to differentiate to oligodendrocytes, the myelinating glia of the central nervous system. Dr. Anderson is a co-founder of StemCells and a member of its SAB, and was a founding SAB member of the International Society for Stem Cell Research. Dr. Anderson also serves on the SAB of Allen Institute for Brain Science. He has held a presidential Young Investigator Award from the National Science Foundation, a Sloan Foundation Fellowship in Neuroscience, and has been Donald D. Matson lecturer at Harvard Medical School. He has received the Charles Judson Herrick Award from the American Association of Anatomy, the 1999 W. Alden Spencer Award in Neurobiology from Columbia University, and the Alexander von Humboldt Foundation Award. Dr. Anderson is a member of the American Academy of Arts and Sciences.
- Fred H. Gage, Ph.D., is Professor, Laboratory of Genetics, The Salk Institute for Biological Studies, La Jolla, California and Adjunct Professor, Department of neurosciences, University of California, San Diego, California. Dr. Gage's lab was the first to discover Neurogenesis in the adult human brain. His research focus is on the development of strategies to induce recovery of function following central nervous system (CNS) damage. Dr. Gage is a co-founder of StemCells and of BrainCells, Inc., and a member of the SAB of each. Dr. Gage also serves on the Scientific Advisory Board of Ceregene, Inc. Dr. Gage has been the recipient of numerous awards, including the 1993 Charles A. Dana Award for Pioneering Achievements in Health and Education, the Christopher Reeves Medal, the Decade of the Brain Medal, the Max Planck Research Award, and the Pasarow Foundation Award. Professor Gage is a member of the Institute of Medicine, a member of the National Academy of Science, and a Fellow of the American Academy of Arts and Science.

Consultants to our SAB include William C. Mobley, M.D., Ph.D., Ben Barres, Ph.D., and Seung Kim, M.D., Ph.D., all of Stanford University.

AVAILABLE INFORMATION

Our principal executive offices are located at 3155 Porter Drive, Palo Alto, CA 94304, and our main telephone number is (650) 475-3100. Investors can obtain access to this annual report on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and all amendments to these reports, free of charge, on our website at http://www.stemcellsinc.com as soon as reasonably practicable after such filings are electronically filed with the Securities and Exchange Commission (SEC). The public may read and copy any material we file with the SEC at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington D.C., 20549. The public may obtain information on the operations of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site, http://www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

ITEM 1A. ***RISK FACTORS***

Risks Related to our Business

Any adverse development in the initial clinical trial for our stem cell technology could substantially depress our stock price and prevent us from raising the capital we will need to further develop our stem cell technology.

To an unusual extent, our ability to progress as a company is significantly dependent on a single early stage clinical trial. Any clinical, regulatory or other development that prevents or delays us from conducting our initial clinical trial for Batten disease, or any safety issue or adverse side effect to any patient that occurs during the trial, or the failure of this initial trial to enroll patients and proceed to completion as anticipated or to show the results expected by investors, would likely significantly depress our stock price and could prevent us from raising the substantial additional capital we will require to further develop our stem cell technologies.

Our financial situation is precarious and, based on currently estimated operating expenses, our existing capital resources may not be sufficient to fund our operations beyond the next eighteen months.

We have incurred significant operating losses and negative cash flows since inception. We have not achieved profitability and may not be able to realize sufficient revenues to achieve or sustain profitability in the future. We do not expect to be profitable in the next several years, but rather expect to incur additional and increasing operating losses. We have limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain our product development efforts and for acquisition of technologies and intellectual property rights, preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, maintaining and enforcing our intellectual property portfolio, general and administrative expenses and other working capital requirements. We rely on cash reserves and proceeds from equity and debt offerings, proceeds from the transfer or sale of our intellectual property rights, equipment, facilities or investments, and government grants and funding from collaborative arrangements, if obtainable, to fund our operations. If we exhaust our cash reserves and are unable to realize adequate financing, we may be unable to meet operating obligations and be required to initiate bankruptcy proceedings. Our existing capital resources may not be sufficient to fund our operations beyond the next eighteen months. We intend to pursue opportunities to obtain additional financing in the future through equity and debt financings, corporate alliances, grants and collaborative research arrangements. The source, timing and availability of any future financing will depend principally upon market conditions, interest rates and, more specifically, on our progress in our exploratory, preclinical and future clinical development programs. Funding may not be available when needed — at all or on terms acceptable to us. Lack of necessary funds may require us to delay, scale back or eliminate some or all of our research and product development programs and/or our capital expenditures or to license our potential products or technologies to third parties.

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

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

Our technology is at an early stage of discovery and development, and we may fail to develop any commercially acceptable or profitable products.

We have yet to develop any products. Before we may market any product, we must obtain regulatory approval from the FDA and equivalent foreign agencies after conducting extensive preclinical studies and clinical trials that demonstrate that our product candidates are safe and effective for each disease for which we seek approval. We have no experience in conducting clinical trials. We expect that none of our cellular therapy product candidates will be commercially available for several years, if at all.

Our programs are still at the preclinical phase for our candidate human liver stem cell, and at the discovery phase for our candidate human pancreas stem cell. While the U.S. Food and Drug Administration (FDA) has permitted us to go forward with our proposed Phase I clinical trial of our proprietary neural stem cell therapy product — HuCNS SC — in Batten disease, and the Institutional Review Board of the Oregon Health & Science University has approved the protocol, that trial has not yet enrolled or treated any patients and there can be no assurance that the clinical investigators will be able to identify suitable candidates for the trial or of a successful outcome of the trial if candidates are enrolled. We may fail to discover the stem cells we are seeking, to develop any products, to obtain regulatory approvals, to enter clinical trials, or to commercialize any products. We may elect to delay or discontinue preclinical studies or clinical trials based on unfavorable results. Any product using stem cell technology may fail to:

- survive and persist in the desired location;
- provide the intended therapeutic benefits;

- properly integrate into existing tissue in the desired manner; or
- achieve therapeutic benefits equal to or better than the standard of treatment at the time of testing.

In addition, our products may cause undesirable side effects. Results of preclinical research may not be indicative of the results that will be obtained in later stages of preclinical or clinical research. If regulatory authorities do not approve our products or if we fail to maintain regulatory compliance, we would be unable to commercialize our products, and our business and results of operations would be harmed. Furthermore, because stem cells are a new form of therapy, the marketplace may not accept any products we may develop. If we do succeed in developing products, we will face many potential obstacles such as the need to obtain regulatory approvals and to develop or obtain manufacturing, marketing and distribution capabilities. In addition, we will face substantial additional risks such as product liability claims.

Moreover, because our cell therapy treatments will be derived from tissue of individuals other than the patient (that is, they will be "non-self" or "allogeneic" transplant products), patients will require the use of immunosuppressive drugs such as cyclosporine, FK506, or others to prevent rejection of the cells. While immunosuppression is now standard in connection with allogeneic transplants of various kinds, long-term maintenance on immunosuppressive drugs can produce complications that include infection, cancer, cardiovascular disease, renal dysfunction and other side effects depending upon which immunosuppressive regimen is employed. Immunosuppression has not been tested with our therapies since we have not yet conducted any clinical trials.

Our success will depend in large part on our ability to develop and commercialize products that treat diseases other than Batten disease.

Although we have initially focused on evaluating our neural cell therapy product for the treatment of infantile and late infantile forms of NCL (Batten disease), this disease is rare, and the market for treating this disease is small. Accordingly, even if we obtain marketing approval for HuCNS-SC for Batten disease, in order to achieve profitability, if at all, we will need to obtain approval for HuCNS-SC and other potential products to treat additional diseases that present more significant market opportunities.

We have payment obligations resulting from real property owned or leased by us in Rhode Island, which diverts funding from our stem cell research and development.

Prior to our reorganization in 1999 and the consolidation of our business in California, we carried out our former encapsulated cell therapy programs in Lincoln, Rhode Island, where we also had our administrative offices. Although we have vacated the Rhode Island facilities, we remain obligated to make lease payments and payments for operating costs for our former science and administrative facility, which we have leased through June 30, 2013. These costs, before sub-tenant rental income, amounted to approximately $1,450,000 in 2005; our rent payments will increase over the term of the lease, and our operating costs may increase as well. In addition to these costs of our former science and administrative facility, we are obligated to make debt service payments and payments for operating costs of approximately $450,000 per year for our former encapsulated cell therapy pilot manufacturing facility, which we own. We have currently subleased a portion of the science and administrative facility, and are seeking to sublease the remaining portion, but we cannot be sure that we will be able to keep any part of the facility subleased for the duration of our obligation. We have currently subleased the entire pilot manufacturing facility to a privately-held biotechnology company, but may not be able to sublease or sell the facility in the future once the current sublease agreements expire. These continuing costs significantly reduce our cash resources and adversely affect our ability to fund further development of our stem cell technology. In addition, changes in real estate market conditions and assumptions regarding the length of time it may take us to either fully sublease, assign or sell our remaining interest in the our former research facility in Rhode Island may have a significant impact on and cause large variations in our quarter to quarter results of operations. In 1999, in connection with exiting our former research facility in Rhode Island, we created a reserve for the estimated lease payments and operating expenses related to it. The reserve is periodically re-evaluated and adjusted based on assumptions relevant to real estate market conditions and the estimated time until we can either fully sublease, assign or sell our remaining interests in the property. At December 31, 2005, the reserve was $7,306,000. In 2005 and 2004, we incurred $1,079,000 and $1,152,000 in operating expenses net of sub-tenant income for this facility. Expenses for this facility will fluctuate based on changes in tenant occupancy rates and other operating expenses related to the lease. Even though it is our intent to sublease, assign, sell or otherwise divest ourselves of our interests in the facility at the earliest possible time, we cannot determine

with certainty a fixed date by which such events will occur. In light of this uncertainty, based on estimates, we will periodically re-evaluate and adjust the reserve, as necessary, and we may make significant adverse adjustments to the reserve in the future.

We may need but fail to obtain partners to support our stem cell development efforts and to commercialize our technology.

Equity and debt financings alone may not be sufficient to fund the cost of developing our stem cell technologies, and we may need to rely on our ability to reach partnering arrangements to provide financial support for our stem cell discovery and development efforts. In addition, in order to successfully develop and commercialize our technology, we may need to enter into a wide variety of arrangements with corporate sponsors, pharmaceutical companies, universities, research groups and others. While we have engaged, and expect to continue to engage, in discussions regarding such arrangements, we have not reached any agreement, and we may fail to obtain any such agreement on terms acceptable to us. Even if we enter into these arrangements, we may not be able to satisfy our obligations under them or renew or replace them after their original terms expire. Furthermore, these arrangements may require us to grant certain rights to third parties, including exclusive marketing rights to one or more products, may require us to issue securities to our collaborators or may contain other terms that are burdensome to us. If any of our collaborators terminates its relationship with us or fails to perform its obligations in a timely manner, the development or commercialization of our technology and potential products may be adversely affected.

Because the patient population for NCL, or Batten disease, is very small, we may encounter difficulties in enrolling subjects in our first planned clinical trial.

The first clinical application we are pursuing — NCL (also known as Batten disease) — has a very small patient population. From this small population, we must locate and enroll patients that satisfy the specific enrollment criteria for our planned clinical trial for this indication. This clinical trial may be delayed significantly or terminated if we are unable to enroll a sufficient number of qualified patients.

We have a history of operating losses, and we may fail to obtain revenues or become profitable.

We expect to continue to incur substantial operating losses in the future in order to conduct our research and development activities, and, if those activities are successful, to fund clinical trials and other expenses. These expenses include the cost of acquiring technology, product testing, acquiring regulatory approvals, establishing production, marketing, sales and distribution programs and administrative expenses. We have not earned any revenues from sales of any product. All of our past revenues have been derived from, and any revenues we may obtain for the foreseeable future are expected to be derived from, cooperative agreements, research grants, investments and interest on invested capital. We currently have no cooperative agreements, we have only one current research grant for our stem cell technology, and we may not obtain any such agreements or additional grants in the future or receive any revenues from them.

If we are unable to protect our patents and proprietary rights, our business, financial condition and results of operations will be harmed.

We own or license a number of patents and pending patent applications related to various stem and progenitor cells and methods of deriving and using them, including human neural stem cell cultures. Patent protection for products such as those we propose to develop is highly uncertain and involves complex and continually evolving factual and legal questions. The governmental authorities that consider patent applications can deny or significantly reduce the patent coverage requested in an application before or after issuing the patent. Consequently, we do not know whether any of our pending applications will result in the issuance of patents, if any existing or future patents will provide sufficient protection or significant commercial advantage or if others will circumvent these patents. We cannot be certain that we were the first to discover the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions because patent applications are secret until they are published, and because publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Patents may not issue from our pending or future patent applications or, if issued, may not be of

commercial benefit to us. In addition, our patents may not afford us adequate protection from competing products. Third parties may challenge our patents or governmental authorities may declare them invalid or reduce their scope. In the event that a third party has also filed a patent application relating to inventions claimed in our patent applications, we may have to participate in proceedings to determine priority of invention. Even if a patent issues, a court could decide that the patent was issued invalidly. Because patents issue for a limited term, our patents may expire before we utilize them profitably. Our most important patents begin to expire in 2015. Under the procedures of the European Patent Office, third parties may oppose our issued European patents during the relevant opposition period. These proceedings and oppositions could result in substantial uncertainties and cost for us, even if the eventual outcome is favorable to us, and the outcome might not be favorable to us. One party has opposed two of our granted European patents. Both oppositions were heard in 2005, and the patents were maintained in somewhat altered form. The time for appeal has not yet run and there can be no assurance that the opposing party will not appeal. While we are confident that, should the decision be appealed by the opposing party, it will be upheld, there can be no guarantee of this. If we are ultimately unsuccessful in our defense of the opposed patents, all claimed rights in the opposed patents will be lost in Europe. U.S. counterparts to these patents are part of our issued patent portfolio; they are not subject to opposition, since that procedure does not exist under U.S. patent law, but other types of proceedings may be available to third parties to contest our U.S. patents. See “Item 1. Business — Patents, Proprietary Rights and Licences” and “Item 3. Legal proceedings.”

If we learn of third parties who infringe our patent rights, we may need to initiate legal proceedings to enforce our patent rights. These proceedings may entail significant costs, and these third parties may have significantly greater financial resources than us. We may not prevail in these proceedings.

Proprietary trade secrets and unpatented know-how are also important to our research and development activities. We cannot be certain that others will not independently develop the same or similar technologies on their own or gain access to our trade secrets or disclose such technology or that we will be able to meaningfully protect our trade secrets and unpatented know-how. We require our employees, consultants, and significant scientific collaborators and sponsored researchers to execute confidentiality agreements upon the commencement of an employment or consulting relationship with us. These agreements may, however, fail to provide meaningful protection or adequate remedies for us in the event of unauthorized use, transfer or disclosure of such information or technology.

If others are first to discover and patent the stem cells we are seeking to discover, we could be blocked from further work on those stem cells.

Because the first person or entity to discover and obtain a valid patent to a particular stem or progenitor cell may effectively block all others, it will be important for us or our collaborators to be the first to discover any stem cell that we are seeking to discover. Failure to be the first could prevent us from commercializing all of our research and development affected by that patent.

If we are unable to obtain necessary licenses to third-party patents and other rights, we may not be able to commercially develop our expected products.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have received patents relating to cell therapy, stem cells and other technologies potentially relevant to or necessary for our expected products. We cannot predict which, if any, of the applications will issue as patents, and there may be existing patents of which we are currently unaware which the commercialization of our product candidates would infringe. If third party patents or patent applications contain valid claims that our technology infringes upon their technology, we may be prevented from commercializing that technology unless the third party is willing to grant a license to us. We may be unable to obtain licenses to the relevant patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative non-infringing technology. If we are unable to obtain such licenses or develop non-infringing technology at a reasonable cost, our business could be significantly harmed. Also, any infringement lawsuits commenced against us may result in significant costs, divert our management’s attention and result in an award against us for substantial damages.

We are aware of intellectual property rights held by third parties that relate to products or technologies we are developing. For example, some aspects of our stem cell product candidates involve the use of growth factors, antibodies and other reagents that may, in certain cases, be the subject of third party rights. Before we commercialize any product using these growth factors, antibodies or reagents, we may need to obtain license rights from third parties or use alternative growth factors, antibodies and reagents that are not then the subject of third party patent rights. We currently believe that the commercialization of our products as currently planned will not infringe these third party rights, or, alternatively, that we will be able to obtain necessary licenses or otherwise use alternate non-infringing technology. However, third parties may nonetheless bring suit against us claiming infringement. If we are unable to prove that our technology does not infringe their patents, or if we are unable to obtain necessary licenses or otherwise use alternative non-infringing technology, we may not be able to commercialize any products. Also, if we use alternative non-infringing technology, we may need to demonstrate comparability in subsequent clinical trials.

We have obtained rights from universities and research institutions to technologies, processes and compounds that we believe may be important to the development of our products. These licensors, however, may cancel our licenses or convert them to non-exclusive licenses if we fail to use the relevant technology or otherwise breach these agreements. Loss of these licenses could expose us to the risk that our technology infringes the rights of third parties. We can give no assurance that any of these licenses will provide effective protection against our competitors.

We compete with companies that have significant advantages over us.

The market for therapeutic products to treat diseases of, or injuries to, the central nervous system (CNS) is large, and competition is intense. The majority of the products currently on the market or in development are small molecule pharmaceutical compounds. Many of the world's large pharmaceutical companies, including Merck, Pfizer, Abbott, Bristol-Myers Squibb, Novartis and GlaxoSmithKline, have made significant commitments to the CNS field. Any cell-based therapy to treat diseases of, or injuries to, the CNS is likely to face intense competition from the small molecule sector. In addition, a number of biotechnology companies with resources far greater than ours may also emerge as competitors. These include Genzyme, Amgen, Cephalon, Shire Pharmaceuticals, BioMarin, Celgene, Biogen Idec, and Titan Pharmaceuticals/Schering AG. Finally, we also expect to compete with smaller biotechnology companies, such as NeuralStem, Geron, NeuroNova, ReNeuron, and ES Cell International, some of which are privately owned.

We believe that our human neural stem cells may have application to many or most of the Lysosomal Storage Diseases ("LSDs") with CNS involvement. We have received FDA approval for our first IND to treat the Infantile and Late Infantile forms of NCL (also known as Batten disease), which are among the LSDs that affect the CNS, and our Phase I clinical trial expected to begin at Doernbecher Children's Hospital at Oregon Health & Safety University. There can be no assurance that the trial will demonstrate either safety or efficacy of our HuCNS-SC. There are, so far as we know, no approved therapies for Batten disease or any of the other CNS-specific LSDs, but other companies, including Genzyme, BioMarin, and Shire, have products approved to treat peripheral aspects of some of the other LSDs, and other products are in clinical trials.

In the liver field, there are no broad-based therapies for the treatment of liver disease at present. The primary therapy is liver transplantation, which is limited by the availability of matched donor organs. Liver-assist devices, when and if they become available, could also be used to help patients while they await suitably matched organs for transplantation. In addition, new therapies may become available before we successfully develop a cell-based therapy for liver disease.

In the field of diabetes, a number of major companies currently market products for the treatment of diabetes and are also engaged in the research and development of new therapies. Such companies include Eli Lilly, Novo Nordisk, J&J, Amylin, ViaCell, and Serono. Consequently, should we successfully develop a cell-based therapy for diabetes, we would expect to face severe competition from these and similar companies.

Development of our technology is subject to and restricted by extensive government regulation, which could impede our business.

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

We base our research and development on the use of human stem and progenitor cells obtained from fetal tissue. The federal and state governments and other jurisdictions impose restrictions on the use of fetal tissue, including those incorporated in the recent federal current Good Tissue Practice, or cGTP, regulations. These regulatory and other constraints could prevent us from obtaining cells and other components of our products in the quantity or quality needed for their development or commercialization. These restrictions change from time to time and may become more onerous. Additionally, we may not be able to identify or develop reliable sources for the cells necessary for our potential products — that is, sources that follow all state and federal guidelines for cell procurement. Certain components used to manufacture our stem cell product candidates will need to be manufactured in compliance with the FDA's Good Manufacturing Practices, or cGMP. Accordingly, we will need to enter into supply agreements with companies that manufacture these components to cGMP standards.

Although we do not use embryonic stem cells, government regulation and threatened regulation of embryonic tissue may lead top researchers to leave the field of stem cell research, or the country, in order to assure that their careers will not be impeded by restrictions on their work. Similarly, these factors may induce the best graduate students to choose other fields less vulnerable to changes in regulatory oversight, thus exacerbating the risk, discussed below, that we may not be able to attract and retain the scientific personnel we need in face of the competition among pharmaceutical, biotechnology and health care companies, universities and research institutions for what may become a shrinking class of qualified individuals. In addition, we cannot assure you that constraints on the use of embryonic stem cells will not be extended to use of fetal stem cells. Moreover, it is possible that concerns regarding research using embryonic stem cells will negatively impact our stock price and our ability to attract collaborators and investors.

We may apply for status under the Orphan Drug Act for some of our therapies to gain a seven-year period of marketing exclusivity for those therapies. The U.S. Congress in the past has considered, and in the future again may consider, legislation that would restrict the extent and duration of the market exclusivity of an orphan drug. If enacted, such legislation could prevent us from obtaining some or all of the benefits of the existing statute even if we were to apply for and obtain orphan drug status with respect to a potential product.

We are dependent on the services of key personnel.

We are highly dependent on the principal members of our management and scientific staff and some of our outside consultants, including the members of our scientific advisory board, our chief executive officer, our vice presidents and the director of our liver stem cell program. Although we have entered into employment agreements with some of these individuals, they may terminate their agreements at any time. In addition, our operations are dependent upon our ability to attract and retain additional qualified scientific and management personnel. We may not be able to attract and retain the personnel we need on acceptable terms given the competition for experienced personnel among pharmaceutical, biotechnology and health care companies, universities and research institutions.

Our activities involve hazardous materials and experimental animal testing; improper handling of these animals and materials by our employees or agents could expose us to significant legal and financial penalties.

Our research and development activities involve the controlled use of hazardous chemicals and potentially hazardous biological materials such as human tissue and animals. Their use subjects us to environmental and safety

laws and regulations such as those governing laboratory procedures, exposure to blood-borne pathogens, use of animals and the handling of biohazardous materials. Compliance with current or future laws and regulations may be expensive and the cost of compliance could adversely affect us.

Although we believe that our safety procedures for using, handling, storing and disposing of hazardous and potentially hazardous materials comply with the standards prescribed by California and federal regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident or of any violation of these or future laws and regulations, state or federal authorities could curtail our use of these materials; we could be liable for any civil damages that result, the cost of which could be substantial; and we could be subjected to substantial fines or penalties. In addition, any failure by us to control the use, disposal, removal or storage, or to adequately restrict the discharge, or to assist in the cleanup, of hazardous chemicals or hazardous, infectious or toxic substances could subject us to significant liability. Any such liability could exceed our resources and could have a material adverse effect on our business, financial condition and results of operations. Moreover, an accident could damage our research and manufacturing facilities and operations and result in serious adverse effects on our business.

The manufacture, development and commercialization of stem cell products expose us to product liability claims, which could lead to substantial liability.

By developing and, ultimately, commercializing medical products, we are exposed to the risk of product liability claims. Product liability claims against us could entail substantial litigation costs and damage awards against us. We are in the process of obtaining liability insurance that covers our clinical trials, and we will need to increase our insurance coverage if and when we begin commercializing products. We may not be able to obtain insurance on acceptable terms, if at all, and the policy limits on our insurance policies may be insufficient to cover our liability.

Since health care insurers and other organizations may not pay for our products or may impose limits on reimbursements, our ability to become profitable could be reduced.

In both domestic and foreign markets, sales of potential products are likely to depend in part upon the availability and amounts of reimbursement from third party health care payor organizations, including government agencies, private health care insurers and other health care payors, such as health maintenance organizations and self-insured employee plans. There is considerable pressure to reduce the cost of therapeutic products, and government and other third party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new therapeutic products and by refusing, in some cases, to provide any coverage for uses of approved products for disease indications for which the U.S. Food and Drug Administration has not granted marketing approval. Significant uncertainty exists as to the reimbursement status of newly approved health care products or novel therapies such as ours. Even if we obtain regulatory approval to market our products, we can give no assurance that reimbursement will be provided by such payors at all or without substantial delay or, if such reimbursement is provided, that the approved reimbursement amounts will be sufficient to enable us to sell products we develop on a profitable basis. Changes in reimbursement policies could also adversely affect the willingness of pharmaceutical companies to collaborate with us on the development of our stem cell technology. In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. We also expect that there will continue to be a number of federal and state proposals to implement government control over health care costs. Efforts at health care reform are likely to continue in future legislative sessions. We do not know what legislative proposals federal or state governments will adopt or what actions federal, state or private payers for health care goods and services may take in response to health care reform proposals or legislation. We cannot predict the effect government control and other health care reforms may have on our business.

We have limited liquidity and capital resources and may not obtain the significant capital resources we will need to sustain our research and development efforts.

We have limited liquidity and capital resources and must obtain substantial additional capital to support our research and development programs, for acquisition of technology and intellectual property rights and, to the extent we decide to undertake these activities ourselves, for preclinical and clinical testing of our anticipated products,

pursuit of regulatory approvals, establishment of production capabilities, maintaining and enforcing our intellectually property portfolio, establishment of marketing and sales capabilities and distribution channels, and general administrative expenses. If we do not obtain the necessary capital resources, we may have to delay, reduce or eliminate some or all of our research and development programs or license our technology or any potential products to third parties rather than commercialize them ourselves. We intend to pursue our needed capital resources through equity and debt financings, corporate alliances, grants and collaborative research arrangements. We may fail to obtain the necessary capital resources from any such sources when needed or on terms acceptable to us. Our ability to complete successfully any such arrangements will depend upon market conditions and, more specifically, on continued progress in our research and development efforts.

Ethical and other concerns surrounding the use of stem cell therapy may negatively affect regulatory approval or public perception of our product candidates, which could reduce demand for our products.

The use of stem cells for research and therapy has been the subject of debate regarding related ethical, legal and social issues. Although these concerns have mainly been directed to the use of embryonic stem cells, which we do not use, the distinction between embryonic and non-embryonic stem cells is frequently overlooked; moreover, our use of human stem cells from fetal sources might raise these or similar concerns. Negative public attitudes toward stem cell therapy could result in greater governmental regulation of stem cell therapies, which could harm our business. For example, concerns regarding such possible regulation could impact our ability to attract collaborators and investors. Also, existing regulatory constraints on the use of embryonic stem cells may in the future be extended to use of fetal stem cells, and these constraints might prohibit or restrict us from conducting research or commercializing products. Government regulation and threatened regulation of embryonic tissue could also harm our ability to attract and retain qualified scientific personnel by causing top researchers to leave the country or the field of stem cell research altogether; and by encouraging the best graduate students to choose other fields that are less vulnerable to changes in regulatory oversight.

Our corporate documents and Delaware law contain provisions that may make it difficult for us to be acquired in a transaction that would be beneficial to our shareholders.

Our board of directors has the authority to issue shares of preferred stock and to fix the rights, preferences, privileges and restrictions of these shares without shareholder approval. In addition, we have adopted a rights plan that generally permits our existing shareholders to acquire additional shares at a substantial discount to the market price in the event of certain attempts by third parties to acquire us. These rights, along with certain provisions in our corporate documents and Delaware law, may make it more difficult for a third party to acquire us or discourage a third party from attempting to acquire us, even if the acquisition might be beneficial to our shareholders.

Risks Related to the Securities Market

Our stock price has been, and will likely continue to be, highly volatile, which may negatively affect our ability to obtain additional financing in the future.

The market price of our stock has been and is likely to continue to be highly volatile due to the risks and uncertainties described in this section of the Form 10-K, as well as other factors, including:

- our ability to develop and test our technology;
- our ability to patent or obtain licenses to necessary technology;
- conditions and publicity regarding the industry in which we operate, as well as the specific areas our product candidates seek to address;
- competition in our industry;
- price and volume fluctuations in the stock market at large that are unrelated to our operating performance; and
- comments by securities analysts, or our failure to meet market expectations.

In September 2005 the Nasdaq Stock Market approved our application to move the listing of our common stock from the Nasdaq Capital Market (previously known as the Nasdaq SmallCap Market) to the Nasdaq National Market. The stock began trading on the Nasdaq National Market on September 30, 2005 under the same symbol, STEM. Over the two-year period ended December 31, 2005, the closing price of our common stock as reported on the Nasdaq Markets ranged from a high of $6.77 to a low of $1.24. As a result of this volatility, your investment in our stock is subject to substantial risk. Furthermore, the volatility of our stock price could negatively impact our ability to raise capital in the future.

We are contractually obligated to issue shares in the future, diluting the interest of current shareholders.

As of December 31, 2005, there were outstanding warrants to purchase 2,521,400 shares of our common stock, at a weighted average exercise price of $1.92 per share. As of December 31, 2005, there were also outstanding options to purchase 6,608,109 shares of our common stock, at a weighted average exercise price of $3.02 per share. Moreover, we expect to issue additional options to purchase shares of our common stock to compensate employees, consultants and directors, and may issue additional shares to raise capital, to acquire other companies or technologies, to pay for services, or for other corporate purposes. Any such issuances will have the effect of diluting the interest of current shareholders.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

None.

ITEM 2. *PROPERTIES*

We entered into a 5-year lease, as of February 1, 2001, for a 40,000 square foot facility, located in the Stanford Research Park in Palo Alto, California. This facility includes space for animals as well as laboratories, offices, and a suite designed to be used to manufacture materials for clinical trials. Effective July 1, 2006, under an agreement that extends the lease through March 31, 2010, we take over the remainder of the building, adding approximately 27,500 square feet to our leased premises. The facility will better enable us to achieve our goal of utilizing genetically unmodified human stem cells for the treatment of disorders of the nervous system, liver, and pancreas. We have a space-sharing agreement with Stanford University for part of the animal facility not needed for our own use.

We continue to lease the following facilities in Lincoln, Rhode Island obtained in connection with our former encapsulated cell technology: our former research laboratory and corporate headquarters building which contains 62,500 square feet of wet labs, specialty research areas and administrative offices held on a lease agreement that goes through June 2013, as well as a 21,000 square-foot pilot manufacturing facility and a 3,000 square-foot cell processing facility financed by bonds issued by the Rhode Island Industrial Facilities Corporation. We have subleased the 21,000 square-foot and the 3,000 square foot facilities. We have also subleased small portions of the 62,500 square foot facility, amounting to approximately ten percent for most of 2006. We are actively seeking to sublease, assign or sell our remaining interests in these properties.

ITEM 3. *LEGAL PROCEEDINGS*

Geron Corporation has opposed two of our European patents that relate to neural stem cells and their uses. The oppositions were filed with the European Patent Office on December 11, 2003 (Patent No. EP-B-0594669) and February 13, 2004 (Patent No. EP-B-0669973). We filed responses to both oppositions on September 23, 2004. Geron alleged that each patent should be revoked on multiple grounds. Both oppositions were heard in 2005, and the patents were maintained in somewhat altered form by the Opposition Division of the European Patent Office. The written opinions have not yet issued; the time for appeal begins to run in each case when the Opposition Division opinion issues.

ITEM 4. *SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS*

None.

PART II

ITEM 5. ***MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES***

(a) Market Price and dividend information

In September 2005 the Nasdaq Stock Market approved our application to move the listing of our common stock from the Nasdaq Capital Market (previously known as the Nasdaq SmallCap Market) to the Nasdaq National Market. The stock began trading on the Nasdaq National Market on September 30, 2005 under the same symbol, STEM. The quarterly ranges of high and low bid prices for the last two fiscal years as reported by NASDAQ are shown below:

	High	Low
2005		
First Quarter	$ 6.76	$ 3.00
Second Quarter	$ 4.60	$ 2.58
Third Quarter	$ 6.57	$ 4.19
Fourth Quarter	$ 5.53	$ 3.40
2004		
First Quarter	$ 2.69	$ 1.56
Second Quarter	$ 2.19	$ 1.30
Third Quarter	$ 1.82	$ 1.25
Fourth Quarter	$ 4.85	$ 1.52

No cash dividends have been declared on our common stock since our inception.

(b) Approximate Number of Holders of Common Stock

As of March 2, 2006, there were approximately 565 holders of record of the common stock, and as of the same date the closing price per share of our common stock on the NASDAQ National Market was $3.60.

(c) Recent Sale of Unregistered Securities

We issued the following unregistered securities in 2003:

- By agreement with one of our outside providers of legal services, a part of the fees incurred were paid in authorized, unregistered stock of the Company, issued pursuant to the exemption from registration provided by Section 4(2) of the Securities Act of 1933, as amended. In 2003, we issued 80,940 shares with a fair market value of $125,499 under that agreement. The agreement has been changed to provide that the payments be made in registered stock.

We issued the following unregistered securities in 2004:

- In August 2004, StemCells issued 9,535 shares of common stock to the California Institute of Technology (Cal Tech) as payment for fees of $10,000 and $5,000 that were due on the issuance of two patents to which StemCells holds a license from Cal Tech that were payable in cash or stock at the Company's option. The shares were issued in a transaction not involving any public offering pursuant to Section 4(2) of the Securities Act of 1933, as amended.
- In December 2004, StemCells issued 1,816 shares of common stock to inventors of a technology as part payment for approximately $2,800 of the total option fee of $25,000 to acquire an exclusive license to the technology from the Board of Trustees of The Leland Stanford Junior University. The shares were issued in a transaction not involving any public offering pursuant to Section 4(2) of the Securities Act of 1933, as amended.

No unregistered securities were issued in 2005.

Equity Compensation Plan Information

The following table provides certain information with respect to all our equity compensation plans in effect as of December 31, 2005.

Equity Compensation Plan Information

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a)) (c)
Equity compensation plans approved by security holders	6,608,109(1)	$ 3.02	1,583,543
Equity compensation arrangements not approved by security holders	100,000(2)	$ 1.20	N/a
Totals	6,708,109	$ 2.99	1,583,543

(1) Consists of Incentive Stock Options issued to employees and options issued as compensation to consultants for consultation services. These options were issued under the Company's 1992 Equity Incentive Plan, its Directors' Stock Option Plan, its StemCells, Inc. Stock Option Plan, or its 2001 and 2004 Equity Incentive Plans.

(2) Represents the portion outstanding of a fully vested warrant issued in January 2003, to purchase 200,000 shares with an exercise price of $1.20 per share and exercisable, in whole or in part, for five years from the date of issuance. The warrant which constitutes an equity compensation arrangement not approved by security holders was issued in exchange for advisory services by non-employees.

ITEM 6. ***SELECTED FINANCIAL DATA***

The following selected financial and operating data are derived from our audited consolidated financial statements. The selected financial and operating data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation" and the consolidated financial statements and notes thereto contained elsewhere in this Form 10-K.

	Year Ended December 31,				
	2005	2004	2003	2002	2001
	(In thousands, except per share amounts)				
Consolidated Statement of Operations					
Revenue from collaborative and licensing agreements	$ 20	$ 22	$ 18	$ 40	$ —
Revenue from grants	186	119	255	375	505
Revenue from assignment of rights to technology	—	—	—	—	300
Total revenue	206	141	273	415	805
Research and development expenses	8,929	8,760	6,144	7,382	8,603
General and administrative expenses	4,837	3,954	3,391	3,359	3,788
Encapsulated Cell Technology (ECT) wind-down and corporate relocation(1)	2,827	2,827	2,885	1,164	575
License & settlement agreement, net(2)	3,736	—	—	—	—
Loss before deemed dividends and cumulative effect of change in accounting principle	(11,738)	(15,330)	(12,291)	(11,644)	(4,021)
Net loss applicable to common stockholders	(11,738)	(15,330)	(14,425)	(13,276)	(5,567)
Basic and diluted loss per share applicable to common stockholders	$ (0.18)	$ (0.31)	$ (0.45)	$ (0.53)	$ (0.25)
Shares used in computing basic and diluted loss per share amounts	63,643	49,606	32,080	25,096	22,242

	December 31,				
	2005	2004	2003	2002	2001
			(In thousands)		
Consolidated Balance Sheet					
Cash and cash equivalents	$ 34,541	$ 41,060	$ 13,082	$ 4,236	$ 13,697
Marketable securities	3,721	—	—	—	—
Total assets	44,839	47,627	19,786	11,329	20,803
Accrued wind-down expenses and deferred rent(1)	7,306	5,528	3,823	1,931	575
Long-term debt, including capital leases	1,351	1,646	1,850	2,087	2,316
Redeemable preferred stock (3)	—	—	—	2,660	2,663
Stockholders' equity	32,376	36,950	10,964	1,933	12,633

(1) Relates to wind-down expenses in respect of the Company's Rhode Island facility. See Note 8 in the consolidated financial statements.

(2) Relates to an agreement with ReNeuron Limited. See Note 2 in the consolidated financial statements.

(3) See Note 10 in the consolidated financial statements.

ITEM 7. ***MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS***

The following discussion of our financial condition and results of operations should be read in conjunction with the accompanying financial statements and the related footnotes thereto.

This report contains forward looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act that involve substantial risks and uncertainties. Such statements include, without limitation, all statements as to expectation or belief and statements as to our future results of operations, the progress of our research, product development and clinical programs, the need for, and timing of, additional capital and capital expenditures, partnering prospects, costs of manufacture of products, the protection of and the need for additional intellectual property rights, effects of regulations, the need for additional facilities and potential market opportunities. Our actual results may vary materially from those contained in such forward-looking statements because of risks to which we are subject, including uncertainty as to whether the U.S. Food and Drug Administration (FDA) will permit us to proceed to clinical testing of proposed products despite the novel and unproven nature of our technology; the risk that, even if approved, our initial clinical trial could be substantially delayed beyond its expected dates or cause us to incur substantial unanticipated costs; uncertainties regarding our ability to obtain the capital resources needed to continue our current research and development operations and to conduct the research, preclinical development and clinical trials necessary for regulatory approvals; failure to obtain a corporate partner or partners to support the development of our stem cell programs; the uncertainty regarding the outcome of the Phase I clinical trial and any other trials we may conduct in the future; the uncertainty regarding the validity and enforceability of issued patents; the uncertainty whether any products that may be generated in our stem cell programs will prove clinically effective and not cause tumors or other side effects; the uncertainty whether we will achieve revenues from product sales or become profitable; uncertainties regarding our obligations in regard to our former encapsulated cell therapy facilities in Rhode Island; obsolescence of our technology; competition from third parties; intellectual property rights of third parties; litigation and other risks to which we are subject. See "Risk Factors" under Item 1A above.

Overview

Since our inception in 1988, we have been primarily engaged in research and development of human therapeutic products. Since the second half of 1999, our sole focus has been on our stem cell technology. In October 2005, we received clearance from the FDA to initiate a Phase I clinical trial of our human neural stem cells as a treatment for the infantile and late infantile forms of neuronal ceroid lipofuscinosis (NCL), a rare, fatal neurodegenerative disease often referred to as Batten disease. In March 2006, we received approval from the Institutional Review Board of the Oregon Health & Science University (OHSU) to conduct the Phase I trial at Doernbecher Children's Hospital at OHSU in Portland, Oregon. This IND is the first in a planned series of INDs for CNS diseases or conditions.

We have not derived any revenues from the sale of any products apart from license revenue for the research use of our human neural stem cells and other patented cells and media, and we do not expect to receive revenues from product sales for at least several years. We have not commercialized any product and in order to do so we must, among other things, substantially increase our research and development expenditures as research and product development efforts accelerate and clinical trials are initiated. We had expenditures for toxicology and other studies in preparation for submitting the Batten disease IND to the FDA and getting it cleared by the FDA, and will incur more such expenditures for any future INDs. We have incurred annual operating losses since inception and expect to incur substantial operating losses in the future. As a result, we are dependent upon external financing from equity and debt offerings and revenues from collaborative research arrangements with corporate sponsors to finance our operations. We have no such collaborative research arrangements at this time and there can be no assurance that such financing or partnering revenues will be available when needed or on terms acceptable to us.

In July 2005, we entered into an agreement with ReNeuron Limited, a UK biotech corporation, under which we granted ReNeuron a license that allows ReNeuron to exploit their "c-mycER" conditionally immortalized adult human neural stem cell technology for therapy and other purposes. In return for the license, we received a 7.5% fully-diluted equity interest in ReNeuron Group plc, the listed UK parent corporation of ReNeuron Limited, and a

cross-license to the exclusive use of their technology for certain diseases and conditions. See "License and Settlement Agreement" below.

In September 2005, we transferred the listing of our shares to the NASDAQ National Market from the NASDAQ Capital Market (formerly known as the Small Cap Market), and in October 2005, we filed a shelf registration statement on Form S-3 for up to $100 million in common stock. See "Liquidity and Capital Resources" below.

Also in September 2005, our collaborators, Drs. Aileen J. Anderson and Brian J. Cummings of the Reeve-Irvine Center at the University of California-Irvine published in the *Proceedings of the National Academy of Sciences of the United States of America* ("PNAS") the first study to show a direct link between transplanted human neural stem cells and restoration of motor function in spinal cord injured mice. This research, which used our human neural stem cells, was funded in part by a multi-year grant awarded in 2004 by the NIH. See Note 7, Grants, in the consolidated financial statements.

Our results of operations have varied significantly from year to year and quarter to quarter and may vary significantly in the future due to the occurrence of material recurring and nonrecurring events, including without limitation the receipt and payment of recurring and nonrecurring licensing payments, the initiation or termination of research collaborations, the on-going expenses to lease and maintain our facilities in Rhode Island and the increasing costs associated with our facility in California. To expand and provide high quality systems and support to our research and development programs, as well as to enhance our internal controls over financial reporting, we will need to hire more personnel, which will lead to higher operating expenses. In 2005 and early 2006, we made several key additions to our management team, including our Chief Medical Officer; our Chief Financial Officer; our Director, Cell Processing; our Director, Human Resources and our Director, Liver Cell Transplant Program.

Our program in neural stem and progenitor cells ranges from the preclinical stage, in which we test human neural stem cells in small animal models of human diseases, both in-house and through external academic collaborators, through the development phase, in which we evaluate improvements to expansion methods and the toxicology of the cells, and through the clinical development phase, with respect to the planned clinical trial in Batten disease mentioned above. In our liver program, we are engaged in evaluating our proprietary liver engrafting cell in various *in vivo* assays, and are planning to advance our liver program into product development as rapidly as we can. Our pancreas program is still in the discovery stage and further evaluation of the therapeutic potential of the candidate human pancreatic stem/progenitor cell will be required.

Critical Accounting Policies

We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements:

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires our management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. Actual results could differ from these estimates. The significant estimates are the accrued wind-down expenses (Note 8) and valuation allowance against net deferred tax assets. See Note 8 and Note 12 in the consolidated financial statements.

Stock-Based Compensation

As permitted by the provisions of Statement of Financial Accounting Standards (SFAS) No. 148, *"Accounting for Stock-Based Compensation — Transition and Disclosure,"* and SFAS No. 123, *"Accounting for Stock-Based Compensation,"* our employee stock option plan is accounted for under Accounting Principles Board Opinion No. 25 (APB 25), *"Accounting for Stock Issued to Employees."* We grant qualified stock options for a fixed number of shares to employees with an exercise price equal to the fair market value of the shares at the date of grant. In these circumstances and in accordance with APB 25, we recognize no compensation expense for qualified stock option grants. We also issue non-qualified stock options for a fixed number of shares to employees with an exercise price

less than the fair market value of the shares at the date of grant. When such options vest, we recognize the difference between the exercise price and fair market value at date of grant as compensation expense in accordance with APB 25.

We account for certain stock options granted to non-employees in accordance with FAS No. 123 and Emerging Issues Task Force (EITF) 96-18, *"Accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services"*, and accordingly, recognize as expense the estimated fair value of such options as calculated using the Black-Scholes valuation model, a methodology allowed by FAS No. 123. The calculated value is re-measured during the service period, and the cost is amortized over the vesting period of each option or the recipient's contractual arrangement, if shorter.

In December 2004, FASB issued SFAS No. 123R (revised 2004), *"Share-Based Payments."* This Statement is a revision of SFAS No. 123, *"Accounting for Stock-Based Compensation."* This Statement supersedes APB 25 and its related implementation guidance. Upon the adoption of SFAS No. 123R we will be required to expense stock options using a fair-value method in our Statement of Operations. We will be required to apply SFAS No. 123R as of the first annual reporting period starting on or after June 15, 2005, which is our first quarter beginning January 1, 2006. Adoption of the expensing requirements will increase our net loss. See "Stock-based Compensation" in Note 1 for disclosures regarding the effect on net earnings and earnings per share if we had applied the fair value recognition provisions of SFAS No. 123R. Upon adoption, we intend to use the modified prospective method. Under this method, compensation cost is recognized beginning with the effective date of adoption (a) based on the requirements of SFAS 123R for all share-based payments granted after the effective date of adoption and (b) based on the requirements of SFAS 123R for all awards granted to employees prior to the effective date of adoption that remain unvested on the date of adoption. We currently utilize the Black-Scholes option pricing model to estimate the fair value. The Black-Scholes model meets the requirements of SFAS 123R but the fair values generated by the model may not be indicative of the actual fair values of our stock-based awards. Although StemCells has not yet determined whether the adoption of SFAS 123R will result in amounts that are similar to the current pro forma disclosures under SFAS 123, it believes the adoption will have a material negative impact on the Company's operating results.

Long-Lived Assets

We routinely evaluate the carrying value of our long-lived assets. We record impairment losses on long-lived assets used in operations when events and circumstances indicate that assets may be impaired and the undiscounted cash flows estimated to be generated by the assets are less than the carrying amount of those assets. If an impairment exists, the charge to operations is measured as the excess of the carrying amount over the fair value of the assets.

Wind-down and Exit Costs

In connection with our wind-down of our Encapsulated Cell Therapy (ECT) operations, our research and manufacturing operations in Lincoln, Rhode Island, and the relocation of our remaining research and development activities and corporate headquarters to California in October 1999, we have provided our estimate of the exit cost obligation in accordance with EITF 94-3, *"Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring)"*. On an ongoing basis we re-evaluate such estimate. For further discussion, see "Wind-down expenses" under "Results of Operations" below, and Note 8 to the consolidated financial statements.

RESULTS OF OPERATIONS

Years Ended December 31, 2005, 2004 and 2003

Revenues

Revenues totaled approximately $206,000, $141,000, and $273,000 for the years ended December 31, 2005, 2004 and 2003, respectively.

	2005	2004	2003	Change from Previous Year: 2005 Versus 2004 $	Change from Previous Year: 2005 Versus 2004 %	Change from Previous Year: 2004 Versus 2003 $	Change from Previous Year: 2004 Versus 2003 %
Revenue:							
Revenue from licensing revenue	$ 19,526	$ 22,206	$ 18,307	$ (2,680)	(12)%	$ 3,899	21%
Revenue from grants	186,388	118,828	255,123	67,560	57%	(136,295)	(53)%
Total revenue	$ 205,914	$ 141,034	$ 273,430	$ 64,880	46%	$ (132,396)	(48)%

Revenues for 2005 include $186,000 that is part of a Small Business Technology Transfer (STTR) grant received in 2004 for approximately $464,000 over one and one half years for studies in Alzheimer's disease. The STTR grant will support joint work with the McLaughlin Research Institute (MRI) in Great Falls, Montana. We will retain $243,000 and the remaining $221,000 will be disbursed to MRI. Revenues for 2004 include $93,000 that completed the draw down of a one-year Small Business Innovation Research grant of $342,000 from the National Institute of Neurological Disease and Stroke (NINDS) received at the end of 2003, and $26,000 which is part of the STTR grant received in 2004. Total revenue includes licensing revenue of $20,000 and $23,000 for 2005 and 2004, respectively.

Revenues for 2003 include $143,000, which was part of the $342,000 NINDS grant and $112,000 from the grant awarded by the National Institute of Diabetes & Digestive & Kidney Disorders (NIDDKD) of the National Institutes of Health. In addition, revenues for 2003 include $18,000 in licensing revenue. The decrease from 2003 to 2004 was primarily attributable to the NIDDKD grant, for which we drew down $112,000 in 2003. Subsequent to 2003, we have not, and shall not, draw further funds from the grant since we are no longer pursuing the particular research that the grant covered. The decrease was also attributable to the completed draw down of the $342,000 NINDS grant. The draw down was $143,000 in 2003 and $93,000 in 2004. The remaining $106,000 was paid to a subcontractor.

Operating Expenses

Operating expenses totaled approximately $16,594,000, $15,541,000, and $12,420,000 for the years ended December 31, 2005, 2004 and 2003, respectively.

	2005	2004	2003	Change from Previous Year: 2005 Versus 2004 $	Change from Previous Year: 2005 Versus 2004 %	Change from Previous Year: 2004 Versus 2003 $	Change from Previous Year: 2004 Versus 2003 %
Operating Expenses							
Research and development	$ 8,929,282	$ 8,760,431	$ 6,143,676	$ 168,851	2%	$ 2,616,755	43%
General & Administrative	4,837,297	3,953,564	3,390,652	883,733	22%	562,912	17%
Wind-down expenses	2,827,403	2,826,879	2,885,329	524	0%	(58,450)	(2)%
Total expense	$ 16,593,982	$ 15,540,874	$ 12,419,657	$ 1,053,108	7%	$ 3,121,217	25%

Research & Development Expenses

Research and development expenses totaled approximately $8,929,000 in 2005, as compared to $8,760,000 in 2004 and $6,144,000 in 2003.

2005 versus 2004. The increase of $169,000 or 2% from 2004 to 2005 was primarily attributable to increased head count and related costs of $848,000 in 2005 as compared to 2004. At December 31, 2005, we had thirty-three full-time employees working in research and development and laboratory support services as compared to twenty-eight at December 31, 2004. This increase in 2005 was partially offset by a net decrease in expenses of $679,000 primarily related to external services. We required a high level of external services in 2004 for preclinical pharmacology and toxicology studies and other external services in preparation for submitting our first IND to the FDA. The decrease in expenses related to external services was also attributable to a decrease in valuation in 2005 of stock options granted as compensation to non-employees as compared to the valuation in 2004. The valuation — computed by the Black Scholes Method — is dependant on variable factors at the time of such valuation such as stock price, stock price volatility, interest rate and remaining life of the option. Our stock price at December 31, 2005 was $3.45 as compared to $4.23 at December 31, 2004.

2004 versus 2003. The increase of $2,616,000 or 43% from 2003 to 2004 was primarily due to the expenditures required for preclinical pharmacology and toxicology studies, supplies, personnel and other external services in preparation for submitting our first IND to the FDA. The increase was also attributable to a higher valuation in 2004 of stock options granted as compensation to non-employees as compared to the valuation in 2003. The valuation — computed by the Black Scholes Method — is dependant on variable factors at the time of such valuation such as stock price, stock price volatility, interest rate and remaining life of the option. Our stock price at December 31, 2004 was $4.23 as compared to $1.98 at December 31, 2003. In addition, the increase reflects higher patent fees and costs than incurred in the same period in 2003. At December 31, 2004, we had twenty-eight full-time employees working in research and development and laboratory support services as compared to twenty-one at December 31, 2003.

General & Administrative Expenses

General and administrative expenses were approximately $4,837,000 in 2005, compared with $3,954,000 in 2004 and $3,391,000 in 2003.

2005 versus 2004. The increase of $884,000 or 22% from 2004 to 2005 was primarily attributable to expensing the fair value of stock options granted to our previous chief financial officer, which was approximately $457,000. The vesting of the options was accelerated as part of an agreement that retained our previous chief financial officer as a consultant for approximately six months following her employment termination date. The increase was also attributable to the increase in head count and related costs of approximately $394,000; increase in recruiting fees of approximately $145,000; and the increase in listing fees of approximately $114,000 incurred in 2005 for moving the listing of our shares from the Nasdaq Capital Market to the Nasdaq National Market. The aforementioned increases were partially offset by a decrease in 2005 of approximately $186,000 for external services to evaluate and test our internal financial control systems so as to meet the requirements of and be in compliance with the Securities and Exchange Commission rules issued under Section 404 of the Sarbanes-Oxley Act, and a net decrease of approximately $40,000 in other expenses.

2004 versus 2003. The increase of $563,000 or 17% from 2003 to 2004 was primarily attributable to the cost of external services incurred in the evaluation and testing of our internal financial control systems so as to meet the requirements of and be in compliance with the new Securities and Exchange Commission rules issued under Section 404 of the Sarbanes-Oxley Act. The increase in general and administrative expenses was also attributable to the separate printing of our proxy statement and our Form 10-K and the effect of a greater number of shareholders in 2004 when compared to 2003. In addition, we incurred an increase in the external auditor fees in the first quarter of 2004 as a result of the restatement of our prior year financial statements.

Wind-Down Expenses

In connection with the wind-down of our former encapsulated cell technology operations, our research and manufacturing operations in Lincoln, Rhode Island, and the relocation of our remaining research and development activities and corporate headquarters to California in October 1999, we provided a reserve for our estimate of the exit cost obligation in accordance with EITF 94-3, *"Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring."* The reserve

reflects estimates of the ongoing costs of our former research and administrative facility in Lincoln, which we hold on a lease that terminates on June 30, 2013. We are seeking to sublease, assign, sell or otherwise divest ourselves of our interest in the facility at the earliest possible time, but we cannot determine with certainty a fixed date by which such events will occur, if at all.

In determining the facility exit cost reserve amount, we are required to consider our lease payments through to the end of the lease term and estimate other relevant factors such as facility operating expenses, real estate market conditions in Rhode Island for similar facilities, occupancy rates and sublease rental rates projected over the course of the leasehold. We re-evaluate the estimate each quarter, taking account of changes, if any, in each underlying factor. The process is inherently subjective because it involves projections over time — from the date of the estimate through the end of the lease — and it is not possible to determine any of the factors except the lease payments with certainty over that period.

Our management forms its best estimate on a quarterly basis, after considering actual sublease activity, reports from our broker/realtor about current and predicted real estate market conditions in Rhode Island, the likelihood of new subleases in the foreseeable future for the specific facility and significant changes in the actual or projected operating expenses of the property. We discount the projected net outflow over the term of the leasehold to arrive at the present value and adjust the reserve to that figure. The estimated vacancy rate for the facility is an important assumption in determining the reserve because changes in this assumption have the greatest effect on estimated sublease income. In addition, the vacancy rate estimate is the variable most subject to change, while at the same time it involves the greatest judgment and uncertainty due to the absence of highly predictive information concerning the future of the local economy and future demand for specialized laboratory and office space in that area. The average vacancy rate of the facility for years 2001 through 2005 was approximately 64%, varying from 49% to 80%. The actual rate in 2005 was 62%. As of December 31, 2005, based on current information available to management, the vacancy rate is projected to be 84% for 2006, 86% for 2007, and approximately 70% from 2008 through the end of the lease. These estimates are based on actual occupancy in 2005, expiration of subleases in 2006 and 2008, predicted lead time for acquiring new subtenants, historical vacancy rates for the area and assessments by our broker/realtor of future real estate market conditions. If the assumed vacancy rate for 2008 to the end of the lease had been five percentage points higher at December 31, 2005, then the reserve would have been increased by approximately $222,000; conversely, if the assumed vacancy rate for that period were five percentage points lower, then the reserve would have been decreased by approximately $222,000. Similarly, a 5% increase or decrease in the operating expenses for the facility from 2006 would have increased or decreased the reserve by approximately $138,000, and a 5% increase or decrease in the assumed average rental charge per square foot would have increased or decreased the reserve by approximately $67,000. Our management does not wait for specific events to change its estimate, but instead uses its best efforts to anticipate them on a quarterly basis.

The wind-down reserve at the end of December 31, 2004 was $4,350,000. For the fiscal year ended December 31, 2005, we recorded actual expenses of $1,079,000 against this reserve. Based on management’s evaluation of the factors mentioned, and particularly the projected vacancy rates described above, we adjusted the reserve to $6,098,000 by recording an additional $2,827,000 during the fiscal year 2005. See Note 8 for a breakdown of these figures by quarter.

Other Income (Expense)

	2005	2004	2003	Change from Previous Year: 2005 Versus 2004 $	Change from Previous Year: 2005 Versus 2004 %	Change from Previous Year: 2004 Versus 2003 $	Change from Previous Year: 2004 Versus 2003 %
Other income (expense):							
License and settlement agreement	$ 3,735,556	—	—	$ 3,735,556	*N/M	—	—
Interest income	1,122,963	$ 322,227	$ 38,826	800,736	249%	$ 283,401	730%
Interest expense	(171,909)	(191,006)	(207,112)	19,097	(10)%	16,106	(8)%
Other income (expense)	(36,892)	(61,680)	23,761	24,788	(40)%	(85,441)	(360)%
Total other income (expense)	$ 4,649,718	$ 69,541	$ (144,525)	$ 4,580,177	*N/M	$ 214,066	148%

* Non meaningful

License and Settlement Agreement

In July 2005, we entered into an agreement with ReNeuron Limited, a wholly owned subsidiary of ReNeuron Group plc, a listed UK corporation (collectively referred to as "ReNeuron"). As part of the agreement, we granted ReNeuron a license that allows ReNeuron to exploit their "c-mycER" conditionally immortalized adult human neural stem cell technology for therapy and other purposes. In return for the license, we received a 7.5% fully-diluted equity interest in ReNeuron, subject to certain anti-dilution provisions, and a cross-license to the exclusive use of ReNeuron's technology for certain diseases and conditions, including lysosomal storage diseases, spinal cord injury, cerebral palsy and multiple sclerosis. The agreement also provides for full settlement of any potential claims that either we or ReNeuron might have had against the other in connection with any putative infringement of certain of each party's patent rights prior to the effective date of the agreement. The agreement is Exhibit 10.71 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2005.

We recorded approximately $3,736,000 as other income in 2005, which was the fair value of the ReNeuron shares net of legal fees and the value of 104,000 shares that was transferred to NeuroSpheres Ltd., an Alberta corporation from which we have licensed some of the patent rights that are the subject of the agreement with ReNeuron. See Note 2 for more details on this transaction.

Interest Income

Interest income for the years ended December 31, 2005, 2004 and 2003 totaled approximately $1,123,000, $322,000 and $39,000, respectively. The increase in interest income from 2003 to 2005 was primarily attributable to a higher average bank balance as a result of our financing transactions in 2004 (See "Liquidity and Capital Resources" below for further detail on these transactions) and a higher yield on overnight and money market funds.

Interest Expense

In 2005, interest expense was $172,000, compared to $191,000 in 2004 and $207,000 in 2003. The decrease from 2003 to 2005 was attributable to lower outstanding debt and capital lease balances.

Other Income/Expense, Net

Other expenses for 2005 include $36,000 in state franchise taxes and $1,000 from a write-off of obsolete equipment. Other expenses for 2004 include a loss of $56,000 resulting from a write-off of obsolete lab equipment and $6,000 in state franchise taxes. For 2003, other income net of other expenses was $24,000, consisting of income received from the leasing of equipment to subtenants and state franchise taxes paid.

Liquidity and Capital Resources

Since our inception, we have financed our operations through the sale of common and preferred stock, the issuance of long-term debt and capitalized lease obligations, revenues from collaborative agreements, research grants and interest income.

We had cash and cash equivalents totaling $34,541,000 at December 31, 2005. Cash equivalents are generally invested in U.S. Treasuries with maturities of less than 90 days. The table below summarizes our cash flows for the respective twelve month periods.

	2005	2004	2003	Change from Previous Year: 2005 Versus 2004 $	Change from Previous Year: 2005 Versus 2004 %	Change from Previous Year: 2004 Versus 2003 $	Change from Previous Year: 2004 Versus 2003 %
Net cash used in operating activities	$ (11,870,568)	$ (11,273,908)	$ (8,543,196)	$ (596,660)	5%	$ (2,730,712)	32%
Net cash used in investing activities	(847,505)	(748,305)	(189,733)	(99,200)	13%	(558,572)	(294)%
Net cash provided by financing activities	6,199,450	40,000,042	17,578,265	(33,800,592)	(85)%	22,421,777	128%
Increase (decrease) in cash and cash equivalents	$ (6,518,623)	$ 27,977,829	$ 8,845,336	$ (34,496,452)	(123)%	$ 19,132,493	216%

We used approximately $11,871,000, $11,274,000, and $8,543,000 of cash, in 2005, 2004 and 2003 respectively, in our operating activities. The increase in cash used in 2005 in comparison to 2004 was primarily attributable to an increase in head count to strengthen our scientific and management team. The increase in cash used in 2004 in comparison to 2003, was primarily attributable to the expenses incurred in preparing to submit our first IND to the FDA for a clinical trial of our human neural stem cells as a treatment for Batten disease.

In 2005, an aggregate of 2,958,348 warrants were exercised. For the exercise of these warrants, we issued 2,842,625 shares of our common stock and received proceeds of approximately $5,939,000.

Listed below are key financing transactions entered into by us in the last three years:

- On October 26, 2004, we entered into an agreement with institutional investors with respect to the registered direct placement of 7,500,000 shares of our common stock at a purchase price of $3.00 per share, for gross proceeds of $22,500,000. Unterberg and Shoreline Pacific, LLC (Shoreline) served as placement agents for the transaction. We sold these shares under a shelf registration statement previously filed with and declared effective by the U.S. Securities and Exchange Commission. For acting as our placement agent Unterberg and Shoreline received fees of approximately $1,350,000 and expense reimbursement of approximately $40,000. No warrants were issued as part of this financing transaction.
- On June 16, 2004, we entered into an agreement with institutional and other accredited investors with respect to the private placement of approximately 13,160,000 shares of our common stock at a purchase price of $1.52 per share, for gross proceeds of approximately $20,000,000. Investors also received warrants exercisable for five years to purchase approximately 3,290,000 shares of common stock at an exercise price of $1.90 per share. During the period October 2004 to December 2005, part of these warrants were exercised to purchase an aggregate of 1,459,342 shares of our common stock at $1.90 per share. We received proceeds of $2,772,750 on issuance of the shares. C.E. Unterberg, Towbin LLC (Unterberg) served as placement agent for the private placement. For acting as our placement agent, Unterberg received fees of approximately $1,200,000, expense reimbursement of approximately $25,000 and a five year warrant to purchase 526,400 shares of our common stock at an exercise price of $1.89 per share.
- On December 10, 2003 we completed a $9.5 million financing transaction with Riverview Group L.L.C. (Riverview), through the sale of 5 million shares of common stock at a price of $1.90 per share. The closing price of our common stock on that date was $2.00 per share.

- On May 7, 2003, we entered into a stock purchase agreement with Riverview, under which Riverview agreed to purchase 4 million shares of our common stock for $6.5 million, or $1.625 per share. On the date of the agreement, the sale price was above the trading price of our common stock, which closed at $1.43 per share on that date. We also agreed to issue a 2-year warrant to Riverview to purchase 1,898,000 shares of common stock at $1.50 per share. The exercise price is subject to adjustment for stock splits, dividends, distributions, reclassifications and similar events. On May 15, 2003 we issued the purchased shares and the warrant, and registered the resale of the purchased shares and the shares underlying the warrant. The exercise price may be below the trading market price at the time of the exercise. In the event that certain conditions are met, including the closing sale price per share of our common stock remaining at or above $2.50 per share for 10 consecutive trading days, we may require Riverview to exercise the warrant for any remaining shares or to relinquish any unexercised portion. On November 11, 2003 and May 6, 2005, Riverview exercised the warrant acquiring 1,098,000 shares and 800,000 shares respectively at $1.50 per share. The total proceeds to us from this warrant exercise were $2,847,000.

We continue to have outstanding obligations in regard to our former facilities in Lincoln, Rhode Island. In 1997, we had entered into a fifteen-year lease for a scientific and administrative facility (the SAF) in a sale and leaseback arrangement. The lease includes escalating rent payments. For the year 2006, we expect to pay $938,000 as an operating lease payment and in addition, based on our 2005 expenses, approximately $490,000 as operating expenses. In 1992 and 1994 we had undertaken direct financing transactions with the State of Rhode Island and received proceeds from the issuance of industrial revenue bonds totaling $5,000,000 to finance the construction of a pilot manufacturing facility and a related cell processing facility. The related leases are structured such that lease payments will fully fund all semiannual interest payments and annual principal payments through maturity in August 2014. For these related facilities we expect to pay approximately $432,000 in principal, interest and related expenses in 2006. In addition based on 2005 expenses we expect to incur approximately $20,000 in expenses common to both facilities such as property management and legal fees. We have subleased the pilot manufacturing facility and the cell processing facility, as well as a portion (approximately one-fourth) of the SAF. We expect to receive, in aggregate, approximately $686,000 in sub-tenant rent for all of the Rhode Island facilities. As a result of the above transactions, our estimated cash outlay net of sub-tenant rent for the Rhode Island facilities will be approximately $1,194,000 for 2006. We are actively seeking to sublease, assign or sell our remaining interests in these facilities. Failure to do so within a reasonable period of time will have a material adverse effect on our liquidity and capital resources.

The following table summarizes our future contractual cash obligations (including both Rhode Island and California leases, but excluding interest income and sub-lease income with respect to the Rhode Island properties):

	Total Obligations at 12/31/05	Payable in 2006	Payable in 2007	Payable in 2008	Payable in 2009	Payable in 2010	Payable in 2011 and Beyond
Capital lease payments (principal & interest)	$ 2,381,739	$ 460,100	$ 332,545	$ 244,531	$ 244,572	$ 242,560	$ 857,431
Operating lease payments	17,846,427	2,831,929	3,165,162	3,469,017	3,536,843	1,767,304	3,076,172
Total contractual cash obligations	$ 20,228,166	$ 3,292,029	$ 3,497,707	$ 3,713,548	$ 3,781,415	$ 2,009,864	$ 3,933,603

We have incurred significant operating losses and negative cash flows since inception. We have not achieved profitability and may not be able to realize sufficient revenues to achieve or sustain profitability in the future. We do not expect to be profitable in the next several years, but rather expect to incur additional operating losses. We have limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain our product development efforts, for acquisition of technologies and intellectual property rights, for preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, for general and administrative expenses and other working capital requirements. We rely on cash balances and proceeds from equity and debt offerings, proceeds from the transfer or sale of our intellectual property rights, equipment, facilities or investments, and government grants and funding from collaborative arrangements, if obtainable, to fund our operations.

We intend to pursue opportunities to obtain additional financing in the future through equity and debt financings, grants and collaborative research arrangements. We have a shelf registration covering shares of our common stock up to a value of $100 million that could be available for financings. The source, timing and availability of any future financing will depend principally upon market conditions, interest rates and, more specifically, on our progress in our exploratory, preclinical and future clinical development programs. Funding may not be available when needed — at all, or on terms acceptable to us. Lack of necessary funds may require us to delay, scale back or eliminate some or all of our research and product development programs, planned clinical trials, and/or our capital expenditures or to license our potential products or technologies to third parties.

Off-Balance Sheet Transactions

With the exception of operating leases for facilities, we have not entered into any off balance sheet financial arrangements and have not established any special purpose entities. We have not guaranteed any debts or commitments of other entities or entered into any options on non-financial assets.

Recent Accounting Pronouncements

Accounting for Stock-Based Compensation

In December 2004, FASB issued SFAS No. 123R (revised 2004), "*Share-Based Payments*". This Statement is a revision of SFAS 123, "*Accounting for Stock-Based Compensation*." This Statement supersedes APB 25, and its related implementation guidance. Upon the adoption of SFAS No. 123R we will be required to expense stock options using a fair-value method in our Statement of Operations. We will be required to apply SFAS No. 123R as of the first annual reporting period starting on or after June 15, 2005, which is our first quarter beginning January 1, 2006. Adoption of the expensing requirements will increase our net loss. See "Stock-based Compensation" in Note 1 for disclosures regarding the effect on net earnings and earnings per share if we had applied the fair value recognition provisions of SAFS No. 123R. Upon adoption, we intend to use the modified prospective method. Under this method, compensation cost is recognized beginning with the effective date of adoption (a) based on the requirements of SFAS 123R for all share-based payments granted after the effective date of adoption and (b) based on the requirements of SFAS 123R for all awards granted to employees prior to the effective date of adoption that remain unvested on the date of adoption. We currently utilize the Black-Scholes option pricing model to estimate the fair value. The Black-Scholes model meets the requirements of SFAS 123R but the fair values generated by the model may not be indicative of the actual fair values of our stock-based awards. Although StemCells has not yet determined whether the adoption of SFAS 123R will result in amounts that are similar to the current pro forma disclosures under SFAS 123, it believes the adoption will have a material negative impact on our operating results.

Accounting for Changes and Error Corrections

In June 2005, the FASB issued Statement of Financial Accounting Standards No. 154, Accounting Changes and Error Corrections ("SFAS 154"). SFAS 154 replaces APB Opinion No. 20, "*Accounting Changes*" and SFAS No. 3, "*Reporting Accounting Changes in Interim Financial Statements*". SFAS 154 requires that a voluntary change in accounting principle be applied retrospectively with all prior period financial statements presented on the new accounting principle. SFAS 154 also requires that a change in method of depreciating or amortizing a long-lived non-financial asset be accounted for prospectively as a change in estimate, and correction of errors in previously issued financial statements should be termed a restatement. SFAS 154 is effective for accounting changes and correction of errors made in fiscal years beginning after December 15, 2005. The implementation of FAS 154 is not expected to have a material impact on our consolidated financial statements.

ITEM 7A. ***QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK***

In July 2005, we entered into an agreement with ReNeuron. As part of the agreement, we granted ReNeuron a license that allows ReNeuron to exploit its "c-mycER" conditionally immortalized adult human neural stem cell technology for therapy and other purposes. In return for the license, we received a 7.5% fully-diluted equity interest in ReNeuron, subject to certain anti-dilution provisions, and a cross-license to the exclusive use of ReNeuron's technology for certain diseases and conditions, including lysosomal storage diseases, spinal cord injury, cerebral palsy and multiple sclerosis. The agreement also provides for full settlement of any potential claims that either StemCells or ReNeuron might have had against the other in connection with any putative infringement of certain of each party's patent rights prior to the effective date of the agreement. The agreement is Exhibit 10.71 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2005. On August 22, 2005, we received 3,774,493 shares of ReNeuron, representing 7.5% of its fully-diluted share capital. On August 12, 2005 ReNeuron listed its shares on the London Stock Exchange's Alternative Investment Market ("AIM"), a market for smaller, growing companies. As provided for under the agreement, the placement and listing of additional shares by ReNeuron resulted in StemCells' receiving an additional 5,165,000 shares. Approximately 104,000 shares of ReNeuron were transferred to NeuroSpheres LTD., an Alberta corporation from which StemCells has licensed some of the patent rights that are the subject of the agreement with ReNeuron.

Company/Stock Symbol	Exchange	Associated Risks	No. of Shares at December 31, 2005	Share Price at December 31,2005 in GBP (£)	Exchange Rate at December 31, 2005 1 GBP = USD	Market Value in USD at December 31, 2005	Expected Future Cash Flows
ReNeuron Group plc/RENE	AIM (AIM is the London Stock Exchange's Alternative Investment Market)	• Lower share price • Foreign currencytranslation • Liquidity • Bankruptcy	8,835,629	0.245	1.7188	$ 3,720,794	(1)

(1) We have not formally adopted a liquidation plan for this investment. Liquidation may be necessary in the future to meet operating cash flow requirements. Although we are not legally restricted from selling the stock, the share price is subject to change and the volume traded has been very small since the stock was listed on the AIM on August 12, 2005. The performance of ReNeuron Group plc stock since its listing does not predict its future value.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Board of Directors and Stockholders
StemCells, Inc.

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting as of December 31, 2005, that the Company maintained effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment, and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that the Company maintained effective internal control over financial reporting as of December 31, 2005, is fairly stated, in all material respects, based on Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Furthermore, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2005, based on Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We do not express an opinion or any other form of assurance on management's statements with respect to their remediation actions.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of StemCells Inc. as of December 31, 2005 and 2004, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2005 and our report dated March 3, 2006 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

San Jose, CA
March 3, 2006

ITEM 8. ***FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

STEMCELLS, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
StemCells, Inc.

We have audited the consolidated balance sheets of StemCells Inc. and subsidiary as of December 31, 2005 and 2004, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2005. These financial statements are the responsibility of management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of StemCells Inc. as of December 31, 2005 and 2004, and the consolidated results of their operations and their consolidated cash flows for each of the three years in the period ended December 31, 2005, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with standards of the Public Company Accounting Oversight Board (United States), the effectiveness of StemCells Inc.'s internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 3, 2006, expressed an unqualified opinion on management's assessment of, and an unqualified opinion on the effective operation of, internal control over financial reporting.

/s/ GRANT THORNTON LLP

San Jose, California
March 3, 2006

StemCells, Inc.

Consolidated Balance Sheets

	December 31, 2005	December 31, 2004
ASSETS		
Current assets:		
Cash and cash equivalents	$ 34,540,908	$ 41,059,532
Other receivables	201,919	180,963
Other current assets	386,966	209,074
Total current assets	35,129,793	41,449,569
Marketable securities	3,720,794	—
Property, plant and equipment, net	3,282,588	3,424,294
Other assets, net	2,705,513	2,753,419
Total assets	$ 44,838,688	$ 47,627,282
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 637,122	$ 524,917
Accrued expenses and other	1,483,300	1,547,370
Accrued wind-down expenses	1,118,796	1,013,460
Capital lease obligations, current portion	54,676	52,843
Bonds payable, current portion	254,167	244,167
Total current liabilities	3,548,061	3,382,757
Capital lease obligations, less current maturities	—	41,065
Bonds payable, less current maturities	1,351,250	1,605,417
Deposits and other long-term liabilities	522,866	610,126
Accrued wind-down expenses non current	6,186,930	4,514,569
Deferred rent	853,997	523,801
Total liabilities	12,463,104	10,677,735
Commitments (Note 6)		
Stockholders' equity:		
Common stock, $.01 par value; 125,000,000 and 75,000,000 shares authorized; 65,396,022 and 62,129,407 shares issued and outstanding at December 31, 2005 and 2004, respectively	653,960	621,294
Additional paid-in capital	217,919,336	211,419,299
Accumulated deficit	(185,943,565)	(174,205,214)
Accumulated other comprehensive loss	(254,147)	—
Deferred compensation	—	(885,832)
Total stockholders' equity	32,375,584	36,949,547
Total liabilities and stockholders' equity	$ 44,838,688	$ 47,627,282

See accompanying notes to consolidated financial statements.

StemCells, Inc.

Consolidated Statements of Operations

	Year Ended December 31,		
	2005	2004	2003
Revenue from collaborative and licensing agreements	$ 19,526	$ 22,206	$ 18,307
Revenue from grants	186,388	118,828	255,123
Total Revenues	205,914	141,034	273,430
Operating Expenses			
Research and development	8,929,282	8,760,431	6,143,676
General and administrative	4,837,297	3,953,564	3,390,652
Encapsulated Cell Therapy wind-down and corporate relocation	2,827,403	2,826,879	2,885,329
	16,593,982	15,540,874	12,419,657
Loss from operations	(16,388,068)	(15,399,840)	(12,146,227)
Other Income (expense):			
License and settlement agreement, net	3,735,556	—	—
Interest income	1,122,963	322,227	38,826
Interest expense	(171,909)	(191,006)	(207,112)
Other income (expense)	(36,892)	(61,680)	23,761
	4,649,718	69,541	(144,525)
Loss before deemed dividend	(11,738,350)	(15,330,299)	(12,290,752)
Dividends to preferred stockholders	—	—	(68,497)
Deemed dividend to preferred stockholders	—	—	(2,065,911)
Net loss applicable to common stockholders	$ (11,738,350)	$ (15,330,299)	$ (14,425,160)
Basic and diluted net loss per share applicable to common stockholders	$ (0.18)	$ (0.31)	$ (0.45)
Weighted average shares used in basic and diluted loss per share calculations	63,643,176	49,606,277	32,080,233

See accompanying notes to consolidated financial statements.

STEMCELLS, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Deferred Compensation	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balances, December 31, 2002	4,000	$ 2,659,686	26,860,078	$ 268,601	$ 149,238,207	$ (146,515,666)	$ —	$ (1,057,773)	$ 1,933,369
Issuance of common stock related to equity financing net of issuance costs of $310,403	—	—	9,303,988	93,040	16,037,307	—	—	—	16,130,347
Dividends paid to 3% convertible preferred holders in stock	—	—	49,809	498	68,000	(68,498)	—	—	—
Accretion of redeemable convertible preferred stock and beneficial conversion feature	—	2,065,911	—	—	(2,065,911)	—	—	—	(2,065,911)
Conversion of redeemable convertible preferred shares to common stock	(4,000)	(4,725,597)	3,500,000	35,000	4,690,597	—	—	—	4,725,597
Common stock issued for external services	—	—	98,180	982	296,821	—	—	—	297,803
Common stock issued pursuant to employee benefit plan	—	—	49,425	494	61,769	—	—	—	62,263
Exercise of warrants	—	—	1,098,000	10,980	1,636,020	—	—	—	1,647,000
Exercise of employee and consultant stock options	—	—	39,378	394	29,692	—	—	—	30,086
Compensation expense from grant of options	—	—	—	—	242,548	—	—	—	242,548
Deferred compensation	—	—	—	—	171,343	—	—	(171,343)	—
Amortization of deferred compensation	—	—	—	—	—	—	—	251,208	251,208
Net loss	—	—	—	—	—	(12,290,752)	—	—	$ (12,290,752)
Balances, December 31, 2003	—	—	40,998,858	$ 409,989	$ 170,406,393	$ (158,874,916)	$ —	$ (977,908)	$ 10,963,558
Issuance of common stock related to equity financing net of issuance cost of $2,863,021	—	—	20,660,000	206,600	39,433,578	—	—	—	39,640,178
Common stock issued for licensing agreements	—	—	11,351	114	17,719	—	—	—	17,833
Common stock issued for external services	—	—	41,050	410	72,640	—	—	—	73,050
Common stock issued pursuant to employee benefit plan	—	—	48,707	487	93,526	—	—	—	94,013
Exercise of employee and consultant stock options	—	—	62,916	629	44,750	—	—	—	45,379
Exercise of warrants	—	—	306,525	3,065	579,333	—	—	—	582,398
Compensation expense from grant of options	—	—	—	—	33,868	—	—	—	33,868
Deferred compensation	—	—	—	—	737,493	—	—	(737,493)	—
Amortization of deferred compensation	—	—	—	—	—	—	—	829,569	829,569
Net loss	—	—	—	—	—	(15,330,299)	—	—	$ (15,330,299)
Balances, December 31, 2004	—	—	62,129,407	$ 621,294	$ 211,419,300	$ (174,205,215)	$ —	$ (885,832)	$ 36,949,547
Expenses related to equity financing	—	—	—	—	(193,946)	—	—	—	(193,946)
Common stock issued for external services	—	—	2,022	20	8,310	—	—	—	8,330
Common stock issued pursuant to employee benefit plan	—	—	28,459	285	110,772	—	—	—	111,057
Compensation expense from grant of options and stock (fair value)	—	—	—	—	461,675	—	—	—	461,675
Exercise of employee and consultant stock options	—	—	393,509	3,935	733,753	—	—	—	737,688
Exercise of warrants	—	—	2,842,625	28,426	5,910,680	—	—	—	5,939,106
Deferred compensation	—	—	—	—	(531,208)	—	—	531,208	—
Amortization of deferred compensation	—	—	—	—	—	—	—	354,624	354,624
Unrealized loss on marketable securities	—	—	—	—	—	—	(254,147)	—	(254,147)
Net loss	—	—	—	—	—	(11,738,350)	—	—	(11,738,350)
Comprehensive loss	—	—	—	—	—	—	—	—	$ 11,992,497
Balances, December 31, 2005	—	—	65,396,022	$ 653,960	$ 217,919,336	$ (185,943,565)	$ (254,147)	—	$ 32,375,584

See accompanying notes to consolidated financial statements.

StemCells, Inc.

Consolidated Statements of Cash Flows

	Year Ended December 31,		
	2005	2004	2003
Cash flows from operating activities:			
Loss before deemed dividend	$ (11,738,350)	$ (15,330,299)	$ (12,290,752)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,082,793	1,037,719	1,013,133
Amortization of deferred compensation	354,624	829,569	251,208
Issue of shares and options in exchange for services	581,062	200,931	602,613
Loss on disposal of fixed assets	1,377	54,644	—
Income from license and settlement agreement	(3,974,941)	—	—
Changes in operating assets and liabilities:			
Accrued interest receivable	(47,928)	(61,660)	(4,831)
Other receivables	26,972	26,160	(75,740)
Other current assets	(177,892)	(29,026)	(77,219)
Other assets, net	(47,053)	—	(277,863)
Accounts payable and accrued expenses	48,135	665,409	725,673
Accrued wind-down expenses	1,777,697	1,705,045	1,891,620
Deferred rent	330,196	(372,400)	(429,218)
Deposits and other long-term liabilities	(87,260)	—	128,180
Net cash used in operating activities	(11,870,568)	(11,273,908)	(8,543,196)
Cash flows from investing activities:			
Purchases of property, plant and equipment	(817,505)	(676,138)	(189,733)
Acquisition of other assets	(30,000)	(72,167)	—
Net cash used in investing activities	(847,505)	(748,305)	(189,733)
Cash flows from financing activities:			
Proceeds (expense) from issuance of common stock, net	(193,946)	39,640,178	16,130,347
Proceeds from the exercise of stock options	737,688	45,379	30,085
Proceeds from the exercise of warrants	5,939,106	582,398	1,647,000
Repayments of capital lease obligations	(39,232)	(30,830)	—
Repayments of debt obligations	(244,167)	(237,083)	(229,167)
Net cash provided by financing activities	6,199,449	40,000,042	17,578,265
Increase (decrease) in cash and cash equivalents	(6,518,624)	27,977,829	8,845,336
Cash and cash equivalents at beginning of year	41,059,532	13,081,703	4,236,367
Cash and cash equivalents at end of year	$ 34,540,908	$ 41,059,532	$ 13,081,703
Supplemental disclosure of cash flow information:			
Interest paid	$ 171,909	$ 191,006	$ 207,112
Supplemental schedule of non-cash investing and financing activities:			
Stock issued for licensing agreements	—	$ 17,833(1)	$ 3,920(2)
Conversion of 3% cumulative preferred stock	—	—	$ 4,725,597(3)
Dividends paid to 3% convertible preferred stock holders in stock	—	—	$ 68,497(4)
Accretion of redeemable preferred stock			$ 1,067,579(5)

(1) Under the terms of a license agreement with the California Institute of Technology (Cal Tech), fees of $10,000 and $5,000 were due on the issuance of two patents to which StemCells holds a license from Cal Tech, payable in cash or stock at the Company's choice. The Company elected to pay the fees in stock and issued 9,535 unregistered shares to Cal Tech. The Company paid $2,833 in stock (1,816 shares) as part of an option agreement with the Board of Trustees of the Leland Stanford Junior University to acquire an exclusive license to an invention.

(2) Under the terms of an amended license agreement with the Oregon Health & Science University (OHSU), 4,000 shares of stock were due to OHSU on execution of the amended agreement.

(3) 4,000 shares of the 3% cumulative convertible preferred stock was converted for 3,500,000 shares of the Company's common stock with a market value of $4,725,597.

(4) Accumulated dividends to 3% convertible preferred stock holders for 2003 was paid in stock with a total market value of $68,497(49,809 shares).

(5) See Note 10 under "3% Cumulative Redeemable Convertible Preferred Stock"

See accompanying notes to consolidated financial statements.

StemCells, Inc.

Notes to Consolidated Financial Statements
December 31, 2005

Note 1. Summary of Significant Accounting Policies

Nature of Business

StemCells, Inc., a Delaware corporation, (the Company) is a biopharmaceutical company that operates in one segment, the development of novel stem cell therapies designed to treat human diseases and disorders.

The accompanying consolidated financial statements have been prepared on the basis that the Company will continue as a going concern. Since inception, the Company has incurred annual losses and negative cash flows from operations and has an accumulated deficit of approximately $185.9 million at December 31, 2005. The Company has not derived revenues from the sale of products, and does not expect to receive revenues from product sales for at least several years.

StemCells expects to incur additional operating losses over the next several years. The Company has very limited liquidity and capital resources and must obtain significant additional capital resources in order to sustain its product development efforts, for acquisition of technologies and intellectual property rights, for preclinical and clinical testing of its anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, maintaining and enforcing its intellectual property portfolio, for general and administrative expenses and other working capital requirements. StemCells relies on cash reserves and proceeds from equity and debt offerings, proceeds from the transfer or sale of intellectual property rights, equipment, facilities or investments, and government grants and funding from collaborative arrangements, if obtainable, to fund its operations. If the Company exhausts its cash reserves and is unable to realize adequate financing, it may be unable to meet operating obligations and be required to initiate bankruptcy proceedings. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

Principles of Consolidation

The consolidated financial statements include accounts of the Company and StemCells California, Inc., a wholly owned subsidiary. All significant inter-company balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. Actual results could differ from these estimates. The significant estimates include the accrued wind-down expenses (Note 8) and valuation allowance against deferred tax assets (Note 12).

Cash and Cash Equivalents

The Company considers cash equivalents to be only those investments that are highly liquid, readily convertible to cash and which mature within three months from the date of purchase.

Marketable securities

In accordance with Statement of Financial Accounting Standard No. 115, *"Accounting for Certain Investments in Debt and Equity Securities"*, the Company has classified the Company's short-term investments as available-for-sale marketable securities in the accompanying consolidated financial statements. The marketable securities are stated at fair market value, with unrealized gains and losses reported in other comprehensive income. Management

reviews securities with unrealized losses for other than temporary impairment. A decline in the fair value of securities, that is deemed other than temporary, is charged to earnings.

Estimated Fair Value of Financial Instruments

The carrying value of cash and cash equivalents, other receivables, accounts payable and the current portion of the bonds payable approximates their estimated fair values due to the short maturities of these instruments. The carrying value of long-term debt approximates its fair value based on current rates available to the Company for similar debt.

Property, Plant and Equipment

Property, plant and equipment, including that held under capital lease obligations, is stated at cost and depreciated using the straight-line method over the estimated life of the respective asset, or the lease term if shorter, as follows:

Building and improvements	3 - 20 years
Machinery and equipment	3 - 10 years
Furniture and fixtures	3 - 10 years

Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or lease terms.

Patent and License Costs

Prior to fiscal year 2001, the Company capitalized certain patent costs related to patent applications. Accumulated costs were amortized over the estimated economic life of the patents, not to exceed 17 years, using the straight-line method, commencing at the time the patent was issued. Costs related to patent applications are charged to expense at the time such patents are deemed to have no continuing value. Since 2001, the Company's policy has been to expense all patent costs as incurred. At December 31, 2005 and 2004, total costs capitalized amounted to approximately $980,000 and the related accumulated amortization was approximately $348,000 and $292,000, respectively. Patent related expenses totaled approximately $703,000, $753,000, and $665,000 in 2005, 2004 and 2003, respectively. License costs are capitalized and amortized as research and development expense over the period of the license agreement.

Stock-Based Compensation

The Company's employee stock option plan is accounted for under Accounting Principles Board Opinion No. 25 (APB 25), "Accounting for Stock Issued to Employees." The Company grants qualified stock options for a fixed number of shares to employees with an exercise price equal to the fair market value of the shares at the date of grant. In these circumstances and in accordance with APB 25, the Company recognizes no compensation expense for qualified stock option grants. The Company also issues non-qualified stock options for a fixed number of shares to employees with an exercise price less than the fair market value of the shares at the date of grant. When such options vest, the Company recognizes the intrinsic value (difference between the exercise price and fair market value at date of grant) as compensation expense in accordance with APB 25.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

For purposes of disclosures pursuant to Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation," (FAS 123) as amended by Statement of Financial Accounting Standards No. 148, "Accounting for Stock-Based Compensation — Transition and Disclosure," (FAS 148), the estimated fair value of options is amortized to expense over the options' vesting period. The following table illustrates the effect on net loss and net loss per share if the Company had applied the fair value recognition provisions of FAS 123 to stock-based employee compensation:

	Year Ended December 31,		
	2005	2004	2003
Net loss applicable to common stockholders — as reported	$ (11,738,350)	$ (15,330,299)	$ (14,425,160)
Add: Stock-based employee/ director compensation expense included in reported net loss under the intrinsic value method	—	33,868	242,548
Deduct: Total stock-based employee/director compensation expense under the fair value based method for all awards	(1,019,120)	(819,317)	(960,166)
Net loss applicable to common stockholders — pro forma	$ (12,757,470)	$ (16,115,748)	$ (15,142,778)
Basic and diluted net loss per share applicable to common stockholders — as reported	$ (0.18)	$ (0.31)	$ (0.45)
Basic and diluted net loss per share applicable to common stockholders — pro forma	$ (0.20)	$ (0.32)	$ (0.47)
Shares used in computing basic and diluted loss per share amounts	63,643,176	49,606,277	32,080,233

The effects on pro forma net loss and net loss per share of expensing the estimated fair value of stock options are not necessarily representative of the effects on reporting the results of operations for future years. As permitted by FAS 123, the Company has used the Black-Scholes model for option valuation, which method may not accurately value the options described.

The Company accounts for stock options granted to non-employees in accordance with SFAS 123 and Emerging Issues Task Force (EITF) 96-18 — "*Accounting For Equity Instruments That Are Issued To Other Than Employees For Acquiring, Or In Conjunction With Selling, Goods Or Services*", and accordingly, recognizes as expense the estimated fair value of such options as calculated using the Black-Scholes valuation model. The fair value is remeasured during the service period and is amortized over the vesting period of each option or the recipient's contractual arrangement, if shorter.

Long-Lived Assets

The Company routinely evaluates the carrying value of its long-lived assets. The Company records impairment losses on long-lived assets used in operations when events and circumstances indicate that assets may be impaired and the undiscounted cash flows estimated to be generated by the assets are less than the carrying amount of those assets. If an impairment exists, the charge to operations is measured as the excess of the carrying amount over the fair value of the assets. No such impairment was recognized during the years ended December 31, 2005, 2004 and 2003.

Income Taxes

The liability method is used to account for income taxes. Deferred tax assets and liabilities are determined based on differences between financial reporting and income tax bases of assets and liabilities as well as net

operating loss carry forwards and tax credits carryforwards and are measured using the enacted tax rates and laws that are expected to be in effect when the differences reverse. Deferred tax assets may be reduced by a valuation allowance to reflect the uncertainty associated with their ultimate realization.

Revenue Recognition

Revenues from collaborative agreements and grants are recognized as earned upon either the incurring of reimbursable expenses directly related to the particular research plan or the completion of certain development milestones as defined within the terms of the collaborative agreement. Payments received in advance of research performed are designated as deferred revenue. The Company recognizes non-refundable upfront license fees and certain other related fees on a straight-line basis over the development period. Fees associated with substantive at risk, performance based milestones are recognized as revenue upon their completion, as defined in the respective agreements. Incidental assignment of technology rights is recognized as revenue at time of receipt.

Research and Development Costs

The Company expenses all research and development costs as incurred. Research and Development costs include costs of personnel, external services, supplies, facilities and miscellaneous other costs.

Net Loss per Share

Basic and diluted net loss per share have been computed using the weighted-average number of shares of common stock outstanding during the period. Basic earnings per share excludes any dilutive effects of options, shares subject to repurchase, warrants and convertible securities. Diluted earnings per share includes the impact of potentially dilutive securities if dilutive.

	Years Ended December 31,		
	2005	2004	2003
Net loss applicable to common stockholders	$ (11,738,350)	$ (15,330,299)	$ (14,425,160)
Weighted average shares used in computing basic and diluted net loss per share amounts	63,643,176	49,606,277	32,080,233
Basic and diluted net loss per share applicable to common stockholders	$ (0.18)	$ (0.31)	$ (0.45)

The Company has excluded outstanding stock options and warrants from the calculation of diluted loss per common share because all such securities are anti-dilutive for all applicable periods presented. These outstanding securities consist of the following potential common shares:

	Years Ended December 31,		
	2005	2004	2003
Outstanding options	6,608,109	6,682,201	5,025,374
Outstanding warrants	2,521,400	5,490,285	2,101,074

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). The only component of other comprehensive income (loss) is an unrealized loss of $254,147 related to the Company's marketable securities.

Recent Accounting Pronouncements

In December 2004, FASB issued SFAS No. 123R (revised 2004), "*Share-Based Payments*." This Statement is a revision of SFAS No. 123, "*Accounting for Stock-Based Compensation*." This Statement supersedes APB 25, and its

related implementation guidance. Upon the adoption of SFAS No. 123R the Company will be required to expense stock options using a fair-value method in its Statement of Operations. The Company will be required to apply SFAS No. 123R as of the first annual reporting period starting on or after June 15, 2005, which is its first quarter beginning January 1, 2006. Adoption of the expensing requirements will increase the Company's net loss. See "Stock-based Compensation" above in this Note 1 for disclosures regarding the effect on net earnings and earnings per share if the Company had applied the fair value recognition provisions of SFAS No. 123R. Upon adoption, the Company intends to use the modified prospective method. Under this method, compensation cost is recognized beginning with the effective date of adoption (a) based on the requirements of SFAS 123R for all share-based payments granted after the effective date of adoption and (b) based on the requirements of SFAS 123R for all awards granted to employees prior to the effective date of adoption that remain unvested on the date of adoption. The Company currently utilizes the Black-Scholes option pricing model to estimate the fair value. The Black-Scholes model meets the requirements of SFAS 123R but the fair values generated by the model may not be indicative of the actual fair values of the Company's stock-based awards. Although StemCells has not yet determined whether the adoption of SFAS 123R will result in amounts that are similar to the current pro forma disclosures under SFAS 123, it believes the adoption will have a material negative impact on the Company's operating results.

In June 2005, the FASB issued Statement of Financial Accounting Standards No. 154, *Accounting Changes and Error Corrections* ("SFAS 154"). SFAS 154 replaces APB Opinion No. 20, "*Accounting Changes*" and SFAS No. 3, "*Reporting Accounting Changes in Interim Financial Statements*". SFAS 154 requires that a voluntary change in accounting principle be applied retrospectively with all prior period financial statements presented on the new accounting principle. SFAS 154 also requires that a change in method of depreciating or amortizing a long-lived nonfinancial asset be accounted for prospectively as a change in estimate, and correction of errors in previously issued financial statements should be termed a restatement. SFAS 154 is effective for accounting changes and correction of errors made in fiscal years beginning after December 15, 2005. The implementation of FAS 154 is not expected to have a material impact on the Company's consolidated financial statements.

Note 2. ReNeuron License and Settlement Agreement

In July 2005, the Company entered into a license and settlement agreement with ReNeuron Limited, a wholly owned subsidiary of ReNeuron Group plc, a publicly listed UK corporation (collectively referred to as "ReNeuron"). As part of the agreement, the Company granted ReNeuron a license that allows ReNeuron to exploit their "c-mycER" conditionally immortalized adult human neural stem cell technology for therapy and other purposes. In return for the license, StemCells received a 7.5% fully-diluted equity interest in ReNeuron, subject to certain anti-dilution provisions, and a cross-license to the exclusive use of ReNeuron's technology for certain diseases and conditions, including lysosomal storage diseases, spinal cord injury, cerebral palsy and multiple sclerosis. The agreement also provides for full settlement of any potential claims that either StemCells or ReNeuron might have had against the other in connection with any putative infringement of certain of each party's patent rights prior to the effective date of the agreement. The agreement is Exhibit 10.71 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005. On July 1, 2005 the Company was entitled to 3,774,493 shares of ReNeuron, representing 7.5% of its fully-diluted share capital. On August 12, 2005, ReNeuron listed its shares on the London Stock Exchange's Alternative Investment Market ("AIM"), a market for smaller, growing companies. As provided for under the agreement, the placement and listing of additional shares by ReNeuron resulted in StemCells' receiving an additional 5,165,000 shares.

The Company recorded in 2005 approximately $3,736,000 as other income, which was the fair value of the ReNeuron shares as of August 12, 2005, net of legal fees and the value of approximately 104,000 shares that were transferred to NeuroSpheres Ltd., an Alberta corporation from which StemCells has licensed some of the patent rights that are the subject of the agreement with ReNeuron. The ReNeuron shares are classified as "marketable securities." The fair market value of the securities (8,835,766 shares) as of December 31, 2005 was $3,720,794. Changes in market value, as a result of changes in market price per share and the exchange rate between the US dollar and the British pound, are accounted for under "other comprehensive loss" and are not recorded as "other income or loss" until the shares are disposed, and a gain or loss realized.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

Note 3. Property, Plant and Equipment, Net

Property, plant and equipment consists of the following:

	December 31, 2005	December 31, 2004
Building and improvements	$ 3,359,417	$ 3,308,098
Machinery and equipment	3,489,695	2,737,971
Furniture and fixtures	348,963	339,458
	7,198,075	6,385,527
Less accumulated depreciation and amortization	(3,915,487)	(2,961,233)
	$ 3,282,588	$ 3,424,294

Depreciation and amortization expense was approximately $958,000, $933,000, and $916,000 for the years ended December 31, 2005, 2004 and 2003, respectively.

Note 4. Other Assets, Net

Other assets are as follows:

	December 31, 2005	December 31, 2004
Patents, net	$ 631,764	$ 687,567
License agreements, net	437,117	376,274
Security deposit — building lease	752,500	752,500
Restricted Cash-(Letter of Credit)	884,132	937,078
	$ 2,705,513	$ 2,753,419

At December 31, 2005 and 2004, accumulated amortization was approximately $1,715,000 and $1,590,000, respectively, for patents and license agreements. Over the next five years, the estimated aggregate annual amortization expense based on current balances for patents and license agreements is expected to be approximately $105,000.

Note 5. Accrued Expenses and Other

Accrued expenses and other current liabilities are as follows:

	December 31, 2005	December 31, 2004
External services	$ 404,875	$ 639,989
Employee compensation	972,906	834,039
Other	105,519	73,342
	$ 1,483,300	$ 1,547,370

Note 6. Leases

The Company has undertaken direct financing transactions with the State of Rhode Island and received proceeds from the issuance of industrial revenue bonds totaling $5,000,000 to finance the construction of its pilot manufacturing facility. The related leases are structured such that lease payments will fully fund all semiannual interest payments and annual principal payments through maturity in August 2014. Interest rates vary with the

respective bonds' maturities, ranging from 8.1% to 9.5%. The bonds contain certain restrictive covenants which limit, among other things, the payment of cash dividends and the sale of the related assets. The Company entered into a fifteen-year lease for a laboratory facility in connection with a sale and leaseback arrangement in 1997. The lease has escalating rent payments and accordingly, the Company is recognizing rent expense on a straight-line basis. At December 31, 2005, the Company had $1,208,000 in deferred rent expense for this facility which is presented as part of the wind-down accrual.

As of February 1, 2001, the Company entered into a 5-year lease for 40,000 square feet of an approximately 68,000 square foot facility located in the Stanford Research Park in Palo Alto, CA. The facility includes space for animals, laboratories, offices, and a GMP (Good Manufacturing Practices) suite. GMP facilities can be used to manufacture materials for clinical trials. On December 19, 2002 the Company negotiated an amendment to the lease, which resulted in reducing the average annual rent over the remaining term of the lease from approximately $3.7 million to $2.0 million. As part of the amendment the Company issued a letter of credit on January 2, 2003 for $503,079, which was an addition to the letter of credit in the amount of $275,000 issued at commencement of the lease, to serve as a deposit for the duration of the lease. The Company negotiated an amendment to the lease effective April 1, 2005, which extends the term of the lease through March 31, 2010, includes an immediate reduction in the rent per square foot, and provides for an expansion of the leased premises by approximately 28,000 additional square feet effective July 1, 2006. In addition, the Company has sublet some of the additional space for the period from April 1, 2005 through June 30, 2006. The average annual rent due from the Company under this lease for the period commencing April 1, 2005 to March 31, 2010 will be approximately $2 million before subtenant income. The lease has escalating rent payments, which the Company is recognizing on a straight-line basis. At December 31, 2005, the Company had deferred rent liability for this facility of $854,000. At December 31, 2005 the Company has space-sharing agreements covering in total approximately 13,000 square feet of this facility. The Company receives the amount of base rent plus the proportionate share of the operating expenses that it pays for such space over the term of these agreements.

As of December 31, 2005, future minimum lease payments and sublease income under operating and capital leases are as follows:

	Capital Leases(1)	Operating Leases	Sublease Income
2006	$ 460,100	$ 2,831,929	$ 1,020,889
2007	332,545	3,165,162	468,847
2008	244,531	3,469,017	407,389
2009	244,572	3,536,843	387,210
2010	242,560	1,767,304	97,508
Thereafter	857,431	3,076,172	—
Total minimum lease payments	2,381,739	$ 17,846,427	$ 2,381,843
Less amounts representing interest	721,646		
Present value of minimum lease payments	1,660,093		
Less current maturities	308,843		
Capital lease obligations and bonds payable, less current maturities	$ 1,351,250		

(1) Includes Bonds payable Rent expense for the years ended December 31, 2005, 2004 and 2003, was $1,611,000, $1,109,000 and $1,040,000 respectively.

Note 7. Grants

On September 30, 2001, the Company was awarded a four-year, $225,000 per year grant from the National Institute of Diabetes & Digestive & Kidney Disorders of the National Institutes of Health for the Company's liver stem cell program which focuses on identifying liver stem and progenitor cells for the treatment of liver diseases. The grant is subject to the availability of funds and satisfactory progress of the project. For this award, the Company has recognized $56,000, $225,000 and $112,000 as grant revenue for 2001, 2002 and 2003 respectively. The Company did not draw further funds from this grant after 2003 as it no longer pursued the particular research it covered.

In September 2003 the Company was awarded a one year, $342,000 Small Business Innovation Research grant from the National Institute of Neurological Disease and Stroke (NINDS), to further its work in the treatment of spinal cord injuries. For this award, the Company has recognized $143,000 and $93,000 as grant revenue for 2003 and 2004, respectively. The remaining $106,000 was reimbursed to a subcontractor.

In September 2004 the Company was awarded a Small Business Technology Transfer (STTR) grant for approximately $464,000 over one and one half years for studies in Alzheimer's disease. The grant supports joint work with Dr. George A. Carlson of the McLaughlin Research Institute (MRI) in Great Falls, Montana. The Company is entitled to receive $243,000, and the remainder of $221,000 will be be reimbursed to MRI. For this award the Company has recognized $26,000 and $186,000 as grant revenue for 2004 and 2005, respectively.

Note 8. Wind-down of Encapsulated Cell Technology Research and Development Program

In July 1999, the Company decided to restructure its research operations by abandoning its former encapsulated cell technology program and to concentrate its resources on the research and development of its proprietary platform of stem cell technologies. The Company wound down its research and manufacturing operations in Lincoln, Rhode Island, and relocated its remaining research and development activities and its corporate headquarters to California, in October 1999.

The Company established a reserve for the estimated lease payments and operating costs of the Rhode Island facilities. In determining the facility exit cost reserve amount, the Company is required to consider its lease payments through to the end of the lease term and estimate other relevant factors such as facility operating expenses, real estate market conditions in Rhode Island for similar facilities, occupancy rates and sublease rental rates projected over the course of the lease. The Company re-evaluates the estimate each quarter, taking account of changes, if any, in each underlying factor. The process is inherently subjective because it involves projections over time — from the date of the estimate through the end of the lease — and it is not possible to determine any of the factors except the lease payments with certainty over that period.

In 2003, the Company incurred approximately $984,000 in actual operating expenses for this facility, of which approximately $775,000 was recorded against the reserve and the remainder was recorded as wind-down expenses. At the end of 2003, the Company revised the reserve at December 31, 2003, to approximately $2,676,000. In 2004, the Company recorded approximately $1,152,000 in operating expenses against the reserve. In 2004, after evaluating the aforementioned factors, at the end of each quarter, the Company re-evaluated its estimate and adjusted the reserve by recording in total, approximately $2,826,000 as additional wind-down expense. At December 31, 2004, the adjusted reserve was approximately $4,350,000. In 2005, the Company incurred approximately $1,079,000 in operating expenses against the reserve. The Company re-valued the reserve to approximately $4,568,000, $5,482,000, $5,520,000 and $6,098,000 at March 31, 2005, June 30, 2005, September 30, 2005, and December 31, 2005, respectively, by recording approximately $521,000, $1,197,000, $297,000 and $812,000 respectively as additional wind-down expenses. At December 31, 2005, the adjusted reserve was approximately $6,098,000. Even though it is the intent of the Company to dispose of the facility at the earliest possible time, it cannot determine with certainty a fixed date by which such disposal will occur. In light of this uncertainty, based on estimates, the Company will periodically re-evaluate and adjust the reserve.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

Wind-down reserve

	Period Covered				
	January 1 to December 31, 2004	January 1 to March 31, 2005	April 1 to June 30, 2005	July 1 to September 30, 2005	October 1 to December 31, 2005
	(Amounts rounded to the nearest thousand)				
Accrued wind-down reserve at beginning of period	$ 2,676,000	$ 4,350,000	$ 4,568,000	$ 5,482,000	$ 5,520,000
Less actual expenses recorded against estimated reserve during the period	(1,152,000)	(303,000)	(283,000)	(259,000)	(234,000)
Additional expense recorded to revise estimated reserve at period-end	2,826,000	521,000	1,197,000	297,000	812,000
Revised reserve at period-end	4,350,000	4,568,000	5,482,000	5,520,000	6,098,000
Add deferred rent at period end	1,178,000	1,185,000	1,192,000	1,200,000	1,208,000
Total accrued wind-down expenses at period-end (current and non current portion)	$ 5,528,000	$ 5,753,000	$ 6,674,000	$ 6,720,000	$ 7,306,000
Accrued wind-down Expenses Current Portion	$ 1,013,000	$ 1,034,000	$ 1,095,000	$ 1,151,000	$ 1,119,000
Non current portion	4,515,000	4,719,000	5,579,000	5,569,000	6,187,000
Total accrued wind-down expenses	$ 5,528,000	$ 5,753,000	$ 6,674,000	$ 6,720,000	$ 7,306,000

Note 9. Consulting Arrangements

In September 1997, the Company entered into consulting arrangements with the principal scientific founders of StemCells California, Dr. Irving Weissman, Dr. Fred H. Gage and Dr. David Anderson and with Dr. Richard M. Rose, then President and CEO of StemCells California. To attract and retain Drs. Rose, Weissman, Gage and Anderson, and to expedite the progress of the Company's stem cell program, the Company awarded these individuals options to acquire a total of approximately 1.6 million shares of the Company's common stock, vesting over a period of eight years and at an exercise price of $5.25 per share, the quoted market price at the grant date. The Company, based on the fair value of these options and their respective vesting schedule, recorded an expense of $355,000, $830,000 and $251,000 for the years 2005, 2004 and 2003, respectively. The fair value was determined using the Black-Scholes method. As of December 31, 2005, these options have been fully vested and expensed.

Note 10. Stockholders' Equity

Sale of Common Stock

Listed below are key financing transactions entered into by the Company through the sale of its common stock during the last three years:

- On May 7, 2003, the Company entered into a stock purchase agreement with Riverview, under which Riverview agreed to purchase 4 million shares of the Company's common stock for $6.5 million, or $1.625 per share. On the date of the agreement, the sale price was above the trading price of the Company's common stock, which closed at $1.43 per share on that date. The Company also agreed to issue a 2-year warrant to Riverview to purchase 1,898,000 shares of common stock at $1.50 per share. The exercise price was subject to adjustment for stock splits, dividends, distributions, reclassifications and similar events. On

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

May 15, 2003, the Company issued the purchased shares and the warrant, and registered the resale of the purchased shares and the shares underlying the warrant. The exercise price could be below the trading market price at the time of the exercise. In the event that certain conditions were met, including the closing sale price of the Common Stock remaining at or above $2.50 per share for 10 consecutive trading days, the Company could have required Riverview to exercise the warrant for any remaining shares or to relinquish any unexercised portion. On November 11, 2003 and May 6, 2005, Riverview exercised the warrant acquiring 1,098,000 shares and 800,000 shares respectively at $1.50 per share. The total proceeds to the Company from this warrant exercise were $2,847,000.

- On December 10, 2003, the Company completed a $9.5 million financing transaction with Riverview through the sale of 5 million shares of common stock at a price of $1.90 per share.
- On June 16, 2004, the Company entered into an agreement with institutional and other accredited investors with respect to the private placement of approximately 13,160,000 shares of the Company's common stock at a purchase price of $1.52 per share, for gross proceeds of approximately $20,000,000. Investors also received warrants exercisable for five years to purchase approximately 3,290,000 shares of the Company's common stock at an exercise price of $1.90 per share. During the period October 2004 to December 2005, part of these warrants, were exercised to purchase an aggregate of 1,459,342 shares of the Company's common stock at $1.90 per share. The Company received proceeds of $2,772,750 on issuance of the shares. C.E. Unterberg, Towbin LLC (Unterberg) served as placement agent for the private placement. For acting as the Company's placement agent, Unterberg received fees of approximately $1,200,000, expense reimbursement of approximately $25,000 and a five year warrant to purchase 526,400 shares of the Company's common stock at an exercise price of $1.89 per share.
- In October 2004, the Company entered into agreements with institutional investors with respect to the registered direct placement of 7,500,000 shares of its common stock at a purchase price of $3.00 per share, for gross proceeds of $22,500,000. Unterberg and Shoreline Pacific, LLC (Shoreline) served as placement agents for the transaction. For acting as the Company's placement agent, Unterberg and Shoreline received fees totaling $1,350,000 and expense reimbursement of approximately $40,000.

Equity Line

On May 10, 2001, the Company entered into a common stock purchase agreement with Sativum Investments Limited for the potential future issuance and sale of up to $30,000,000 of the Company's common stock, subject to restrictions and other obligations. Under the agreement, which expired in January 2004, the Company had the right to draw down on the facility, from time to time, and Sativum was obligated to purchase shares of the Company's common stock at a 6% discount to a volume weighted average market price over the 20 trading days following the draw-down notice. There was neither a requirement that the Company draw on the facility nor a penalty for not doing so. The Company was limited with respect to how often it could exercise a draw down and the amount of each draw down.

In connection with the Company's execution of the common stock purchase agreement with Sativum, the Company issued three three-year warrants to purchase an aggregate of 350,000 shares of the Company's common stock at $2.38 per share to Sativum (250,000 shares), and to the placement agents: Pacific Crest Securities Inc. (75,000 shares) and Granite Financial Group, Inc. (25,000 shares). The placement agents have exercised their warrants in full, and the Company received payment of $238,050 for the shares issued to them in July 2001. The Company has valued the warrants using the Black-Scholes method and recorded the fair value in stockholders' equity. These amounts are $522,500, $167,750 and $55,250 respectively. The exercise price and number of shares are subject to adjustment for subdivisions, combinations, stock dividends and reorganizations.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

The Company did draw down $4,000,000 by issuance of 707,947 shares in July of 2001, $118,000 by issuance of 107,812 shares in December of 2002, $66,000 by issuance of 58,516 shares in January of 2003, and $375,000 by issuance of 245,472 shares in May of 2003, before applicable fees.

3% Cumulative Redeemable Convertible Preferred Stock

On December 4, 2001, the Company issued 5,000 shares of 3% cumulative convertible preferred stock to Riverview Group, L.L.C., (Riverview Group), a wholly owned subsidiary of Millennium Partners, L.P. plus a 5-year warrant to purchase 350,877 shares of common stock at $3.42 per share. The Company received net proceeds of $4,727,515. This preferred stock was convertible into shares of the Company's common stock at a conversion price of $2.00 per share at the option of Riverview Group and has a mandatory redemption feature requiring the Company to redeem unconverted preferred stock on December 4, 2003. The conversion price of $2.00 per share was subject to adjustment for stock splits, dividends, distributions, reclassifications and similar events. The final closing price of the Company's common stock on the NASDAQ National Market on the December 4, 2001 commitment date was $2.90 per share. The Company valued the warrants and the beneficial conversion feature reflecting the December 4, 2001 commitment date and the most beneficial per share discount available to the preferred shareholders. As the preferred shares contained a stated redemption, such value of $3,185,000, including issuance costs of $272,485, was recorded as a discount to the preferred shares. The preferred shares were accreted to the mandatory redemption amount and the accretion resulted in a deemed dividend. The deemed dividend has been reflected as an adjustment to net loss applicable to common stockholders. The holders of the preferred stock had liquidation rights equal to their original investment plus accrued but unpaid dividends. Dividends due on the shares of the preferred stock outstanding on a Dividend Payment Date (June 30 and December 31) could be paid in the Company's common stock if the Company so elected by those dates. The Company did elect to pay the dividends in stock, and did so by issuing 38,313 shares of stock on July 3, 2002, 59,656 shares on December 23, 2002 and 17,935 shares June 30, 2003, valued at approximately $60,000, $69,000 and $30,000 respectively.

The Riverview Group converted all of its holdings of the Company's 3% cumulative convertible preferred stock as follows:

- On December 7, 2001, 1,000 shares of the 3% cumulative convertible preferred stock were converted into 500,125 shares of the Company's common stock.
- On April 9, 2003, the Company agreed with Riverview to reduce the conversion price to $0.80 per share for a period of 20 trading days. Riverview immediately agreed to convert 2,000 shares with a face value of $2 million, at the reduced price. Riverview received 2,521,041 shares of common stock upon conversion, which includes 21,041 shares valued at $16,833 as accrued dividends. As a result of the change in the conversion price, the Company recorded a deemed dividend to preferred shareholders related to the beneficial conversion feature of approximately $1,000,000 in the second quarter of 2003.
- On November 11, 2003, Riverview converted the remaining 2,000 shares of its 3% cumulative convertible preferred stock for 1,010,833 shares of the Company's common stock, which includes 10,833 shares valued at $21,666 as accrued dividends.

The Company recorded deemed dividends related to the 3% cumulative convertible preferred stock of $2,065,911 and $1,280,004 in 2003 and 2002. As all of the 3% cumulative convertible preferred stock was converted prior to December 31, 2003, no deemed dividends were recorded in 2004 and 2005.

6% Cumulative Convertible Preferred Stock

On April 13, 2000, the Company issued 1,500 shares of 6% cumulative convertible preferred stock plus a warrant for 75,000 shares of common stock to two members of its Board of Directors for $1,500,000 on terms more favorable to the Company than it was then able to obtain from outside investors. The shares were initially convertible at the option of the holders into common stock at $3.77 per share (based on the face value of the

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

preferred shares). The conversion price for the preferred shares and the related number of warrants was subject to adjustment upon certain equity transactions, as defined by the applicable agreement.

On June 7, 2002, one of the preferred stockholders converted 750 shares of 6% cumulative convertible preferred stock plus accumulated dividends, at an effective conversion price of $1.94 per share for 439,442 shares of common stock. On October 4, 2002, the remaining 750 shares, which were held by the other preferred shareholder, together with accumulated dividends, converted automatically at the then-effective conversion price of $1.07 to 812,802 shares of common stock. The accumulated dividends were paid in common stock with a value of $222,457. No 6% cumulative convertible preferred stock outstanding as of December 31, 2005.

In 2005, all of the related warrants were exercised for which the Company issued 83,036 shares and received proceeds of $247,102.

Stock Issued For Technology Licenses

Under License Agreements with NeuroSpheres, Ltd., the Company obtained an exclusive patent license covering all uses of certain neural stem cell technology. The Company made up-front payments to NeuroSpheres of 65,000 shares of its common stock and $50,000, and will make additional cash payments when milestones are achieved. Effective in 2004, the Company began making annual $50,000 payments, creditable against royalties.

Pursuant to the terms of a license agreement with the California Institute of Technology (Cal Tech) and the Company's acquisition of its wholly owned subsidiary, StemCells California, StemCells issued 14,513 shares of common stock to Cal Tech. The Company issued an additional 12,800 shares of common stock to Cal Tech with a market value of approximately $40,000 in May 2000, upon execution of an amendment adding four families of patent applications to the license agreement. In August 2002, the Company acquired an additional license from Cal Tech to a different technology, pursuant to which the Company issued 27,535 shares of its common stock with a market value of approximately $35,000; in 2004, the Company also issued 9,535 shares of its common stock with a market value of approximately $15,000 to Cal Tech on the issuance of two patents covered under this additional license.

In December 2004, the Company made part payment of $2,833 in stock (1,816 shares) as part of an option agreement with the Board of Trustees of the Leland Stanford Junior University to acquire an exclusive license to an invention. The remainder of the option fee ($7,167) was paid in cash. The Company did not exercise this option but retains a non-exclusive license to the invention.

Upon entering a license agreement with the Oregon Health & Science University (OHSU) in March 1997, the Company issued it 4,838 shares of common stock and an option to purchase up to 62,888 additional shares to OHSU with an exercise price of $.01 per share. The option has vested as to 9,675 shares for which shares were issued on March 31, 2002; the remaining option was terminated and the Company issued 4,000 shares of its common stock, with a market value of approximately $3,900, to OHSU in January 2003, pursuant to an amendment to the license agreement.

Stock Option Plans

The Company has adopted several stock plans that provide for the issuance of incentive and nonqualified stock options, various stock and performance awards and stock appreciation rights, at prices to be determined by the Board of Directors. In the case of incentive stock options, such price will not be less than the fair market value on the date of grant. Options granted to employees generally vest ratably over four years and are exercisable for ten years from the date of grant or within three months of termination. The Company has paid its directors and some of its consultants in below-market options or in stock awards from its stock plans.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

The following table presents the combined activity of the Company's stock option plans for the years ended December 31:

	2005		2004		2003	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at January 1	6,682,201	$ 2.67	5,025,374	$ 2.91	4,294,050	$ 3.14
Granted	1,075,481	4.75	1,932,772	1.92	1,125,161	1.25
Exercised	(423,989)	1.76	(152,673)	0.30	(97,233)	0.31
Canceled	(725,584)	3.11	(123,272)	3.49	(296,604)	2.34
Outstanding at December 31	6,608,109	$ 3.02	6,682,201	$ 2.67	5,025,374	$ 2.91
Options exercisable at December 31	4,265,713	$ 3.03	3,687,243	$ 2.98	3,048,940	$ 3.11

The following table presents weighted average price and life information about significant option groups outstanding at December 31, 2005:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (Yrs.)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
Less than $2.00	2,815,885	7.28	$ 1.19	1,627,702	$ 0.99
$2.00 - $3.99	1,229,285	6.03	$ 2.76	1,024,072	$ 2.75
$4.00 - $5.99	2,562,939	4.77	$ 5.14	1,613,939	$ 5.23
	6,608,109			4,265,713	

The weighted average fair value per share of options granted during 2005, 2004 and 2003 was $3.75, $1.64 and $0.86, respectively. The fair value of options at the date of grant were estimated using the Black-Scholes model with the following weighted average assumptions:

	Options		
	2005	2004	2003
Expected life (years)	5	5	5
Risk-free interest rate	4.14%	3.60%	3.29%
Expected volatility	100.7%	111.6%	121.1%
Expected dividend yield	0%	0%	0%

The Company has neither declared nor paid dividends on any share of its common stock and does not expect to do so in the foreseeable future.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

Common Stock Reserved

The Company has the following shares of common stock reserved for the exercise of options, warrants and other contingent issuances of common stock, as of December 31, 2005:

Shares reserved for exercise of stock options	8,191,652
Shares reserved for warrants related to financing transactions	2,357,058
Shares reserved for compensation related to external services	100,000
Shares reserved for warrants related to previously converted 3% convertible preferred stock	514,072
Shelf reserve for possible future issuances of shares(1)	1,471,962
Total	12,634,744

(1) In addition, on October 4, 2005, the Company filed a shelf registration statement providing for the sale of up to $100,000,000 of its common stock; no specific number of shares has been reserved for this purpose.

Note 11. Research Agreements

The Company has entered various research agreements and collaborations with academic institutions. Under such arrangements, the Company is typically granted rights to the related intellectual property or an option to obtain such rights on terms to be agreed, in exchange for research funding and specified royalties on any resulting product revenue. In addition, StemCells occasionally makes grants to academic institutions to support research of interest to the Company without requesting any intellectual property interests in return.

Under a November 1997 Research Funding and Option Agreement with The Scripps Research Institute (Scripps), StemCells funded certain research in the total amount of approximately $931,000and issued 4,837 shares of the Company's common stock and a stock option to purchase 9,674 shares of the Company's Common Stock with an exercise price of $.01 per share upon the achievement of specified milestones. As a result of the agreement, StemCells acquired an exclusive license to certain inventions resulting from the sponsored research, subject to the payment of royalties and certain other amounts, including payments totaling $425,000 on the achievement of certain milestones. The Company has also entered Sponsored Research Agreements and License Agreements with Oregon Health & Science University (OHSU) under which it paid OHSU approximately $295,000, 4,838 shares of the Company's common stock and issued an option to OHSU to purchase an additional 62,888 shares with an exercise price of $.01 per share. The option has vested as to 9,675 shares for which shares were issued on March 31, 2002; the remaining option was terminated and the Company issued 4,000 shares of its common stock, with a market value of approximately $3,900, to OHSU in January 2003, pursuant to an amendment to the license agreement.

In 2005 and 2004, the Company made research grants and gifts to support relevant research totaling approximately $200,000 and $61,000 respectively to academic institutions.

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

Note 12. Income Taxes

Deferred income taxes reflect net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

	December 31,	
	2005	2004
Deferred tax assets:		
Net operating losses	$ 39,894,000	$ 39,287,000
Capitalized research and development costs	19,618,000	16,046,000
Research and development credits	5,130,000	4,742,000
Accrued wind down cost	2,439,000	1,740,000
Other	305,000	544,000
	67,386,000	62,359,000
Valuation allowance	(67,386,000)	(62,359,000)
Net deferred tax assets	$ —	$ —

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $5,027,000, $1,974,000, and $3,495,000 during 2005, 2004, and 2003 respectively

The effective tax rate as a percentage of income before income taxes differs from the statutory federal income tax rate (when applied to income before income taxes) for the years ended December 31, as follows:

	2005	2004	2003
Statutory federal income tax (benefit) rate	(34%)	(34%)	(34%)
Increase (decrease) resulting from:			
Expenses not deductible for taxes	2.4	1.9	(2.1)
Expiration of State net operating losses	1.2	19.2	7.7
Increase in valuation allowance	30.4	12.9	28.4
Effective tax (benefit) rate	0%	0%	0%

Note 13. Employee Retirement Plan

The Company has a qualified defined contribution plan covering substantially all employees. Participants are allowed to contribute a fixed percentage of their total annual cash compensation to the plan (subject to the maximums defined by law) and the Company matches 50% of employee contributions, up to a maximum of 6% of the employee's compensation, with the Company's common stock. The related expense was $111,000, $78,000, and $60,000 for the years ended December 31, 2005, 2004 and 2003, respectively

StemCells, Inc.

Notes to Consolidated Financial Statements — (Continued)

Note 14. Quarterly Financial Information (unaudited)

	Quarter			
	First	Second	Third	Fourth
	(In thousands, except per share data)			
Year ended December 31, 2005:				
Total revenue	$ 35	$ 37	$ 91	$ 43
Operating expenses	3,645(1)	4,121(1)	4,183(1)	4,645(1)
Other income (expense)	161	216	3,998(2)	275
Net loss applicable to common stockholders	(3,449)	(3,868)	(94)	(4,327)
Basic and diluted (loss) per share applicable to common stockholders	$ (0.06)	$ (0.06)	$ (0.00)	$ (0.07)
Year ended December 31, 2004:				
Total revenue	$ 93	$ 6	$ 4	$ 38
Operating expenses	2,862(1)	3,284(1)	4,325(1)	5,070(1)
Other income (expense)	(1)	(25)	(17)	113
Net loss applicable to common stockholders	(2,770)	(3,303)	(4,338)	(4,919)
Basic and diluted (loss) per share applicable to common stockholders	$ (0.07)	$ (0.08)	$ (0.08)	$ (0.08)

(1) Includes adjustment of wind-down accrual — see note 8.

(2) Includes income recognized on receipt of shares received from ReNeuron — see note 2.

Note 15. Subsequent Events

In March 2006, StemCells received approval from the Institutional Review Board of the Oregon Health & Science University to begin its Phase I clinical trial at OHSU Doernbecher Children's Hospital in Portland. Also in March 2006, the Company entered an agreement to gain access to additional GMP cell manufacturing and processing space to manufacture products for anticipated clinical trials and for research and development purposes.

ITEM 9. ***CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE***

None.

ITEM 9A. ***CONTROLS AND PROCEDURES***

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of its chief executive officer and chief financial officer, evaluated the effectiveness of the design and operation of its disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this annual report. Based on this evaluation, the Company's principal executive officer and principal financial officer concluded that these disclosure controls and procedures are effective to ensure that the information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the requisite time periods, and to provide reasonable assurance that information required to be disclosed by the Company in such reports is accumulated and communicated to the Company's management, including its chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Controls

There have been no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2005, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's management, including its principal executive officer and principal financial officer, assessed the effectiveness of its internal control over financial reporting based on the framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The evaluation of the design and operating effectiveness of internal controls over financial reporting include among others those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

During the fiscal year 2005, the Company periodically tested the design and operating effectiveness of its internal controls. Among other matters, the Company sought in its evaluation to determine whether there were any "significant deficiencies" or "material weakness" in its internal control over financial reporting, or whether it had identified any acts of fraud involving management or other employees. The Company's evaluation of its internal controls over financial reporting as of December 31, 2004, led to the conclusion that inadequate segregation of duties resulted in significant deficiencies, which, in aggregate, amounted to a material weakness. The Company's hiring of a chief financial officer and a senior accountant, and the enhanced policies and procedures implemented with these additional resources in 2005, have remedied these significant deficiencies related to the segregation of duties. Additional significant deficiencies in human resources and stock administration functions were identified at December 31, 2004, but were not alone or in aggregate deemed a material weakness. These deficiencies are remedied as of December 31, 2005.

Based on the above evaluation, the Company's chief executive officer and chief financial officer have assessed that as of December 31, 2005, the Company's internal controls over financial reporting were effective. Nonetheless, it is important to acknowledge that due to its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Therefore, even systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2005 has been audited by Grant Thornton LLP, an independent registered public accounting firm, as stated in their report which appears herein.

ITEM 9B. ***OTHER INFORMATION***

None

PART III

ITEM 10. ***DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT***

The information required by this Item is incorporated by reference from our Proxy Statement for the 2006 Annual Meeting of Shareholders.

ITEM 11. ***EXECUTIVE COMPENSATION***

The information required by this Item is incorporated by reference from Item 5 of this Annual Report on Form 10-K and our Proxy Statement for the 2006 Annual Meeting of Shareholders.

ITEM 12. ***SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS***

The information required by this Item is incorporated by reference from our Proxy Statement for the 2006 Annual Meeting of Shareholders.

ITEM 13. ***CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS***

The information required by this Item is incorporated by reference from our Proxy Statement for the 2006 Annual Meeting of Shareholders.

ITEM 14. ***PRINCIPAL ACCOUNTANT FEES AND SERVICES***

The information required by this Item is incorporated by reference from our Proxy Statement for the 2006 Annual Meeting of Shareholders.

PART IV

ITEM 15. ***EXHIBITS AND FINANCIAL STATEMENT SCHEDULES***

(a) DOCUMENTS FILED AS PART OF THIS FORM 10-K.

(1) Financial Statements:

The financial statements filed as part of this Report are listed and indexed under Item 8 above.

(2) Financial Statement Schedules:

Schedules are not included herein because they are not applicable or the required information appears in the Financial Statements or Notes thereto.

(b) Exhibits.

Exhibit No.	Title or Description
3.1*	Restated Certificate of Incorporation of the Registrant
3.2++	Amended and Restated By-Laws of the Registrant.
3.3{***}	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant.
3.4ˆ	Certificate of Amendment of the Restated Certificate of Incorporation of the Registrant.
4.1ˆˆ	Specimen Common Stock Certificate.
4.2++++	Form of Warrant Certificate issued to a certain purchaser of the Registrant's Common Stock in April 1995.
4.3X	Common Stock Purchase Warrant
4.4X	Callable Warrant
4.5XXX	Registration Rights Agreement dated as of May 10, 2001 between the Registrant and Sativum Investments Limited.
4.6XXX	Callable Warrant, dated June 21, 2001, issued to Millennium Partners, L.P.
4.7XXX	Common Stock Purchase Warrant, Class A, dated June 21, 2001, issued to Millennium Partners, L.P.
4.8{**}	Certificate of Designations of the Powers, Preferences and Relative, Participating, Optional and other Special Rights of Preferred Stock and Qualifications, Limitations and Restrictions Thereof of 3% Cumulative Convertible Preferred Stock for StemCells, Inc.
4.9{**}	Warrant to Purchase Common Stock — Riverview Group, LLC
4.10XXXX	Warrant to Purchase Common Stock — Cantor Fitzgerald & Co.
4.11&&	Warrant to Purchase Common Stock — Riverview Group, LLC
10.1XX	Side Letter, dated March 17, 2001, between the Company and Oleh S. Hnatiuk, regarding NeuroSphere License Agreement dated October 30, 2000.
10.2*	Form of at-will Employment Agreement between the Registrant and most of its employees.
10.3*	Form of Agreement for Consulting Services between the Registrant and members of its Scientific Advisory Board.
10.4*	Form of Nondisclosure Agreement between the Registrant and its Contractors.
10.5*	1988 Stock Option Plan.
10.6*	1992 Equity Incentive Plan.
10.7*	1992 Stock Option Plan for Non-Employee Directors.
10.8**!!!!	1992 Employee Stock Purchase Plan.
10.9++	Research Agreement dated as of March 16, 1994 between NeuroSpheres, Ltd. and Registrant.
10.10++	Lease Agreement between the Registrant and Rhode Island Industrial Facilities Corporation, dated as of August 1, 1992.
10.11++	First Amendment to Lease Agreement between Registrant and The Rhode Island Industrial Facilities Corporation dated as of September 15, 1994.
10.12+++	Form of Common Stock Purchase Agreement to be executed among the Registrant and certain purchasers of the Registrant's Common Stock.
10.13###	Lease Agreement dated as of November 21, 1997 by and between Hub RI Properties Trust, as Landlord, and CytoTherapeutics, Inc., as Tenant.
10.14!!	CTI individual stockholders option agreement dated as of July 10, 1996 among the Company and the individuals listed therein.
10.15***	Agreement and Plan of Merger dated as of August 13, 1997 among StemCells, Inc., the Registrant and CTI Acquisition Corp.
10.16***	Consulting Agreement dated as of September 25, 1997 between Dr. Irving Weissman and the Registrant.
10.17###	Letter Agreement among each of Dr. Irving Weissman and Dr. Fred H. Gage and the Registrant.

Exhibit No.	Title or Description
10.18****	StemCells, Inc. 1996 Stock Option Plan.
10.19****	1997 StemCells Research Stock Option Plan (the "1997 Plan")
10.20****	Form of Performance-Based Incentive Option Agreement issued under the 1997 Plan.
10.21{*}	Rights Agreement, dated as of July 27, 1998 between Bank Boston, N.A. as Rights Agent and the Registrant.
10.22$**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.23$**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.24$**	License Agreement dated as of November 20, 1998 between The Scripps Research Institute and the Registrant.
10.25$$**	Purchase Agreement and License Agreement dated as of December 29, 1999 between Neurotech S.A. and the Registrant.
10.26++++**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
10.27++++**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
10.28X	Form of Registration Rights Agreement dated as of July 31, 2000 between the Registrant and investors.
10.29X	Subscription Agreement dated as of July 31, 2000 between the Registrant and Millennium Partners, L.P.
10.30XX	License Agreement, dated as of October 30, 2000, between the Registrant and NeuroSpheres Ltd.
10.31XX	Letter Agreement, dated January 2, 2001, between the Registrant and Martin McGlynn
10.32XX	Lease, dated February 1, 2001, between the Board of Trustees of Stanford University and the Registrant.
10.33XXX	Registration Rights Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P.
10.34XXX	Subscription Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P.
10.35$$$	2001 Equity Incentive Plan
10.36{**}	Subscription Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C.
10.37{**}	Registration Rights Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C.
10.38{**}	Agreement dated as of December 4, 2001 between the Registrant and Millennium Partners, L.P.
10.39{**}	Agreement dated as of December 4, 2001 among the Registrant, Millennium Partners, L.P. and Riverview Group, L.L.C.
10.40&	Agreement, dated as of April 9, 2003, between the Registrant and Riverview Group, L.L.C.
10.41&&	Form of Registration Rights Agreement between the Registrant and Riverview Group, L.L.C.
10.42&&&	Securities Purchase Agreement, dated as of May 7, 2003, between the Registrant and Riverview Group, L.L.C.
10.43%	Securities Purchase Agreement dated as of December 9, 2003, between the Registrant and Riverview Group, L.L.C.
10.44^^^	Form of Securities Purchase Agreement dated as of June 16, 2004 between the Registrant and certain Purchasers parties thereto.
10.45^^^	Form of Warrant.
10.46^^^^	Amended and Restated 2004 Equity Incentive Plan of the Registrant.

Exhibit No.	Title or Description
10.47§	License Agreement dated as of July 1, 2005 between the Registrant and ReNeuron Limited
10.48§§	Letter Agreement effective as of September 6, 2005, between the Registrant and Rodney K.B. Young
10.49§§	Consulting Agreement effective as of September 6, 2005 between the Registrant and Judi R. Lum
14.1%%	Code of Ethics
21X	Subsidiaries of the Registrant.
23.1	Consent of Grant Thornton, LLP , Independent Registered Public Accounting Firm.
31.1	Certification Pursuant to Securities Exchange Act Rule 13(a)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Martin McGlynn, Chief Executive Officer).
31.2	Certification Pursuant to Securities Exchange Act Rule 13(a)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Rodney K.B. Young, Chief Financial Officer).
32.1	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Martin McGlynn, Chief Executive Officer)
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^^	Previously filed with the Commission as an Exhibit to, and incorporated by reference to, the Registrant's Registration Statement on Form S-3, File No. 333-117360.
^^^	Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant's current report on Form 8-K filed on June 17, 2004.

^^^^	Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrants Registration Statement on Form S-8, File No. 333-118263.
^^^^^	Previously filed with the Commission as an Exhibit to, and incorporated herein by reference to, the Registrant's current report on Form 8-K filed on November 9, 2004.
§	Previously filed with the Commission as an Exhibit to and incorporated herein by reference to, the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005.
§§	Previously filed with the Commission as an Exhibit to and incorporated herein by reference to, the Registrant's current report on Form 8-K filed on September 7, 2005.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

STEMCELLS, INC.

By: */s/ MARTIN MCGLYNN*
Martin McGlynn
PRESIDENT AND CHIEF EXECUTIVE OFFICER

Dated: March 14, 2006

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Capacity	Date
/s/ MARTIN McGLYNN Martin McGlynn	President and Chief Executive Officer and Director (principal executive officer)	March 14, 2006
/s/ RODNEY K.B. YOUNG Rodney K.B. Young	Chief Financial Officer (principal financial officer)	March 14, 2006
/s/ GEORGE KOSHY George Koshy	Chief Accounting Officer (principal accounting officer)	March 14, 2006
/s/ ERIC BJERKHOLT Eric Bjerkholt	Director	March 14, 2006
/s/ RICARDO B. LEVY, PH.D. Ricardo B. Levy, Ph.D.	Director	March 14, 2006
/s/ ROGER PERLMUTTER, M.D. Roger Perlmutter, M.D.	Director	March 14, 2006
/s/ JOHN J. SCHWARTZ, PH.D. John J. Schwartz, Ph.D.	Director, Chairman of the Board	March 14, 2006
/s/ IRVING L. WEISSMAN, M.D. Irving L. Weissman, M.D.	Director	March 14, 2006

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EXHIBIT INDEX

Exhibit No.	Title or Description
3.1*	Restated Certificate of Incorporation of the Registrant
3.2++	Amended and Restated By-Laws of the Registrant.
3.3{***}	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant.
3.4^	Certificate of Amendment of the Restated Certificate of Incorporation of the Registrant.
4.1^^	Specimen Common Stock Certificate.
4.2++++	Form of Warrant Certificate issued to a certain purchaser of the Registrant's Common Stock in April 1995.
4.3X	Common Stock Purchase Warrant
4.4X	Callable Warrant
4.5XXX	Registration Rights Agreement dated as of May 10, 2001 between the Registrant and Sativum Investments Limited.
4.6XXX	Callable Warrant, dated June 21, 2001, issued to Millennium Partners, L.P.
4.7XXX	Common Stock Purchase Warrant, Class A, dated June 21, 2001, issued to Millennium Partners, L.P.
4.8{**}	Certificate of Designations of the Powers, Preferences and Relative, Participating, Optional and other Special Rights of Preferred Stock and Qualifications, Limitations and Restrictions Thereof of 3% Cumulative Convertible Preferred Stock for StemCells, Inc.
4.9{**}	Warrant to Purchase Common Stock — Riverview Group, LLC
4.10XXXX	Warrant to Purchase Common Stock — Cantor Fitzgerald & Co.
4.11&&	Warrant to Purchase Common Stock — Riverview Group, LLC
10.1XX	Side Letter, dated March 17, 2001, between the Company and Oleh S. Hnatiuk, regarding NeuroSphere License Agreement dated October 30, 2000.
10.2*	Form of at-will Employment Agreement between the Registrant and most of its employees.
10.3*	Form of Agreement for Consulting Services between the Registrant and members of its Scientific Advisory Board.
10.4*	Form of Nondisclosure Agreement between the Registrant and its Contractors.
10.5*	1988 Stock Option Plan.
10.6*	1992 Equity Incentive Plan.
10.7*	1992 Stock Option Plan for Non-Employee Directors.
10.8**!!!!	1992 Employee Stock Purchase Plan.
10.9++	Research Agreement dated as of March 16, 1994 between NeuroSpheres, Ltd. and Registrant.
10.10++	Lease Agreement between the Registrant and Rhode Island Industrial Facilities Corporation, dated as of August 1, 1992.
10.11++	First Amendment to Lease Agreement between Registrant and The Rhode Island Industrial Facilities Corporation dated as of September 15, 1994.
10.12+++	Form of Common Stock Purchase Agreement to be executed among the Registrant and certain purchasers of the Registrant's Common Stock.
10.13###	Lease Agreement dated as of November 21, 1997 by and between Hub RI Properties Trust, as Landlord, and CytoTherapeutics, Inc., as Tenant.
10.14!!	CTI individual stockholders option agreement dated as of July 10, 1996 among the Company and the individuals listed therein.
10.15***	Agreement and Plan of Merger dated as of August 13, 1997 among StemCells, Inc., the Registrant and CTI Acquisition Corp.
10.16***	Consulting Agreement dated as of September 25, 1997 between Dr. Irving Weissman and the Registrant.
10.17###	Letter Agreement among each of Dr. Irving Weissman and Dr. Fred H. Gage and the Registrant.
10.18****	StemCells, Inc. 1996 Stock Option Plan.
10.19****	1997 StemCells Research Stock Option Plan (the '1997 Plan")
10.20****	Form of Performance-Based Incentive Option Agreement issued under the 1997 Plan.

Table of Contents

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10.21{*}	Rights Agreement, dated as of July 27, 1998 between Bank Boston, N.A. as Rights Agent and the Registrant.
10.22$**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.23$**	License Agreement dated as of October 27, 1998 between The Scripps Research Institute and the Registrant.
10.24$**	License Agreement dated as of November 20, 1998 between The Scripps Research Institute and the Registrant.
10.25$$**	Purchase Agreement and License Agreement dated as of December 29, 1999 between Neurotech S.A. and the Registrant.
10.26++++**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
10.27++++**	License Agreement dated as of June 1999 between The Scripps Research Institute and the Registrant.
10.28X	Form of Registration Rights Agreement dated as of July 31, 2000 between the Registrant and investors.
10.29X	Subscription Agreement dated as of July 31, 2000 between the Registrant and Millennium Partners, L.P.
10.30XX	License Agreement, dated as of October 30, 2000, between the Registrant and NeuroSpheres Ltd.
10.31XX	Letter Agreement, dated January 2, 2001, between the Registrant and Martin McGlynn
10.32XX	Lease, dated February 1, 2001, between the Board of Trustees of Stanford University and the Registrant.
10.33XXX	Registration Rights Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P.
10.34XXX	Subscription Agreement, dated as of June 21, 2001, by and between the Registrant and Millennium Partners, L.P.
10.35$$$	2001 Equity Incentive Plan
10.36{**}	Subscription Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C.
10.37{**}	Registration Rights Agreement, dated as of December 4, 2001 between the Registrant and Riverview Group, L.L.C.
10.38{**}	Agreement dated as of December 4, 2001 between the Registrant and Millennium Partners, L.P.
10.39{**}	Agreement dated as of December 4, 2001 among the Registrant, Millennium Partners, L.P. and Riverview Group, L.L.C.
10.40&	Agreement, dated as of April 9, 2003, between the Registrant and Riverview Group, L.L.C.
10.41&&	Form of Registration Rights Agreement between the Registrant and Riverview Group, L.L.C.
10.42&&&	Securities Purchase Agreement, dated as of May 7, 2003, between the Registrant and Riverview Group, L.L.C.
10.43%	Securities Purchase Agreement dated as of December 9, 2003, between the Registrant and Riverview Group, L.L.C.
10.44^^^	Form of Securities Purchase Agreement dated as of June 16, 2004 between the Registrant and certain Purchasers parties thereto.
10.45^^^	Form of Warrant.
10.46^^^^	Amended and Restated 2004 Equity Incentive Plan of the Registrant.
10.47§	License Agreement dated as of July 1, 2005 between the Registrant and ReNeuron Limited
10.48§§	Letter Agreement effective as of September 6, 2005, between the Registrant and Rodney K.B. Young
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EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 3, 2006, accompanying the consolidated financial statements and management's assessment of the effectiveness of internal control over financial reporting included in the Annual Report of Stemcells, Inc. on Form 10-K for the year ended December 31, 2005. We hereby consent to the incorporation by reference of said reports in the Registration Statements of Stemcells, Inc. on Forms S-3 (File No. 333-128797 effective October 4, 2005 and amended on November 3, 2005, File No. 333-117360 effective July 14, 2004, File No. 333-105664, effective May 29, 2003, File No. 333-83992, effective March 8, 2002, File No. 333-75806, effective December 21, 2001, File No. 333-66692, effective August 3, 2001, and File No. 333-61726, effective June 29, 2001) and Forms S-8 (File No. 333-118263 effective August 16, 2004, File No. 333-66700, effective August 3, 2001, File No. 333-37313, effective October 7, 1997, File No. 333-29335, effective June 16, 1997, File No. 333-10773, effective August 23, 1996, and File No. 33-49524, effective July 10, 1992) and Registration Statements of CytoTherapeutics, Inc. on Forms S-3 (File No. 33-91228, effective April 14, 1995, and File No. 33-68900, effective September 15, 1993).

/s/ Grant Thornton LLP

San Jose, California
March 3, 2006

EXHIBIT 31.1

Certification of Chief Executive Officer
under Section 302 of the Sarbanes-Oxley Act

I, Martin McGlynn, certify that:

(1) I have reviewed this annual report on Form 10-K of StemCells, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2006
/s/ Martin McGlynn
Martin McGlynn
President and Chief Executive Officer

EXHIBIT 31.2

Certification of Chief Financial Officer
under Section 302 of the Sarbanes-Oxley Act

I, Rodney K.B. Young, certify that:

(1) I have reviewed this annual report on Form 10-K of StemCells, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

a. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

b. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2006

/s/ Rodney K.B. Young
Rodney K.B. Young
Chief Financial Officer

Exhibit 32.1

Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the StemCells, Inc. (the "Company") Annual Report on Form 10-K for the year ended December 31, 2005 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Martin McGlynn, President and Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

(1). The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2). The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2006

/s/ Martin McGlynn

Martin McGlynn
President and Chief Executive Officer

Exhibit 32.2

Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the StemCells, Inc. (the "Company") Annual Report on Form 10-K for the year ended December 31, 2005 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Rodney K.B. Young, Chief Financial Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

(1). The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2). The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2006

/s/ Rodney K.B. Young
Rodney K.B. Young
Chief Financial Officer